```
* * * * * * * * * * * * * * * * * * * *
FILE 'USPAT' ENTERED AT 17:02:40 ON 15 JUL 1999
 U.S. PATENT TEXT
                                         FILE
    THE WEEKLY PATENT TEXT AND IMAGE DATA IS CURRENT
    THROUGH July 13,1999
=> s (raloxifen or droloxifen or centchroman)
            9 RALOXIFEN
           1 DROLOXIFEN
           25 CENTCHROMAN
           34 (RALOXIFEN OR DROLOXIFEN OR CENTCHROMAN)
L1
=> s (lhrh oe lutein?(w)hormone#(w)releas?(w)hormone#)
          712 LHRH
         9622 OE
         1928 LUTEIN?
            0 LHRH OE LUTEIN?
                (LHRH (W) OE (W) LUTEIN?)
        23706 HORMONE#
SEARCH ENDED BY USER
=> s (lhrh or lutein?(w)hormone#(w)releas?(w)hormone#)
          712 LHRH
         1928 LUTEIN?
        23706 HORMONE#
       607798 RELEAS?
        23706 HORMONE#
          579 LUTEIN? (W) HORMONE# (W) RELEAS? (W) HORMONE#
          977 (LHRH OR LUTEIN? (W) HORMONE# (W) RELEAS? (W) HORMONE#)
L2
=> s 11 and 12
```

0 L1 AND L2

 r_3

.

* * * * * RECONNECTED TO U.S. Patent & Trademark Office * * * * * * SESSION RESUMED IN FILE 'USPAT' AT 17:22:08 ON 15 JUL 1999 FILE 'USPAT' ENTERED AT 17:22:08 ON 15 JUL 1999

=> d his

(FILE 'USPAT' ENTERED AT 17:02:40 ON 15 JUL 1999)

L1 34 S (RALOXIFEN OR DROLOXIFEN OR CENTCHROMAN)

L2 977 S (LHRH OR LUTEIN? (W) HORMONE# (W) RELEAS? (W) HORMONE#)

L3 0 S L1 AND L2

=> s (RALOXIFENe OR DROLOXIFENe OR CENTCHROMAN)

167 RALOXIFENE

29 DROLOXIFENE

25 CENTCHROMAN

L4 205 (RALOXIFENE OR DROLOXIFENE OR CENTCHROMAN)

=> s 12 and 14

L5 10 L2 AND L4

=> s 12(p)14

L6 1 L2(P)L4

=> d 16 1

1. 5,770,603, Jun. 23, 1998, Quinazoline derivatives; Keith Hopkinson Gibson, 514/259; 544/293 [IMAGE AVAILABLE]

=> d 16 kwic 1

US PAT NO: 5,770,603 [IMAGE AVAILABLE] L6: 1 of 1

SUMMARY:

BSUM (85)

The . . . for example etoposide and camptothecin; biological response modifiers, for example interferon; anti-hormones, for example antioestrogens such as tamoxifen, toremifene or raloxifene, for example antiandrogens such as 4'-cyano-3-(4-fluorophenylsulphonyl)-2-hydroxy-2-methyl-3'-(trifluoromethyl)-propionanilide (bicalutamide), flutamide, nilutamide or cyproterone acetate, or, for example LHRH antagonists or LHRH agonists such as goserelin, leuprorelin or buserelin and hormone synthesis inhibitors, for example aromatase inhibitors such as those disclosed in . . .

=> d 15 1-10

- 1. 5,919,815, Jul. 6, 1999, Taxane compounds and compositions; Matthews O. Bradley, et al., 514/449; 549/510 [IMAGE AVAILABLE]
- 2. 5,843,962, Dec. 1, 1998, Methods of inhibiting ovarian dysgenesis, delayed puberty, or sexual infantilism; Jeffrey A. Dodge, 514/324, 422

- 3. 5,795,909, Aug. 18, 1998, DHA-pharmaceutical agent conjugates of taxanes; Victor E. Shashoua, et al., 514/449, 549 [IMAGE AVAILABLE]
- 4. 5,770,603, Jun. 23, 1998, Quinazoline derivatives; Keith Hopkinson Gibson, 514/259; 544/293 [IMAGE AVAILABLE]
- 5. 5,760,060, Jun. 2, 1998, Methods of inhibiting ovarian dysgenesis, delayed puberty, or sexual infantilism; Jeffrey A. Dodge, 514/324, 422, 443 [IMAGE AVAILABLE]
- 6. 5,719,165, Feb. 17, 1998, Methods of inhibiting ovarian dysgenesis, delayed puberty, or sexual infantilism; Jeffrey A. Dodge, 514/324, 422, 443 [IMAGE AVAILABLE]
- 7. 5,552,417, Sep. 3, 1996, Methods of Inhibiting sexual precocity; Jeffrey A. Dodge, 514/324, 422, 443 [IMAGE AVAILABLE]
- 8. 5,462,949, Oct. 31, 1995, Methods of inhibiting fertility in women; Charles D. Jones, et al., 514/324 [IMAGE AVAILABLE]
- 9. 5,451,590, Sep. 19, 1995, Methods of inhibiting sexual precocity; Jeffrey A. Dodge, 514/324 [IMAGE AVAILABLE]
- 10. 5,451,589, Sep. 19, 1995, Methods of inhibiting ovarian dysgenesis, delayed puberty, or sexual infantilism; Jeffrey A. Dodge, 514/324, 422, 443 [IMAGE AVAILABLE]
- => d 15 kwic 1-10

```
=> e raloxifen/cn
                   RALOX BHT/CN
                   RALOX LC/CN
E2
             0 --> RALOXIFEN/CN
E3
E4
             1
                   RALOXIFENE/CN
                   RALOXIFENE HYDROCHLORIDE/CN
             1
E5
             3
                   RALSTONITE/CN
E6
             1
                   RALSTONITE (ALF2(OH))/CN
E7
                   RALSTONITE (ALF2(OH).1/2H2O)/CN
E8
E9
                   RALTITREXED/CN
                   RALUBEN/CN
E10
                   RALUFON DCH/CN
E11
             1
                   RALUFON DL/CN
E12
=> e droloxifen/cn
                   DROLBAN/CN
E1
                   DROLEPTAN/CN
E2
Е3
             0 --> DROLOXIFEN/CN
E4
             1
                   DROLOXIFENE/CN
                   DROLOXIFENE CITRATE/CN
E5
             1
                   DROLOXIFENE N-OXIDE/CN
Ε6
             1
                   DROLUENE 10/CN
E7
             1
                   DROLUENE 2.5/CN
E8
             1
E9
             1
                   DROLUENE 25/CN
                   DROLUENE 5/CN
E10
             1
                   DROME PROTEIN (ILE-149) (HUMAN CLONE PBL-2)/CN
             1
E11
                   DROME PROTEIN (MET-149) (HUMAN CLONE PBL-2)/CN
             1
E12
=> e centchroman/cn
                   CENTBUTINDOLE/CN
E1
                   CENTBUTINDOLE, (-)-/CN
E2
             1
E3
             1 --> CENTCHROMAN/CN
E4
             1
                   CENTCHROMAN HYDROCHLORIDE/CN
E5
             1
                   CENTDAROL/CN
             1
                   CENTDARONE/CN
E6
             1
                   CENTEDRIN/CN
E7
             1
                   CENTEDRINE/CN
E.8
                   CENTELLA ASIATICA, EXT./CN
E9
             1
E10
             1
                   CENTELLA EXT./CN
E11
             1
                   CENTELLASE/CN
E12
                   CENTHAQUIN/CN
=> s e3
             1 CENTCHROMAN/CN
T.1
=> d 11 1
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 1999 ACS
L1
     31477-60-8 REGISTRY
RN
     Pyrrolidine,
CN
1-[2-[4-[(3R,4R)-3,4-dihydro-7-methoxy-2,2-dimethyl-3-phenyl-4]
     2H-1-benzopyran-4-yl]phenoxy]ethyl]-, rel- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Pyrrolidine, 1-[2-[4-(3,4-dihydro-7-methoxy-2,2-dimethyl-3-phenyl-2H-1-
```

ì

```
benzopyran-4-yl)phenoxy]ethyl]-, trans-
     Pyrrolidine, 1-[2-[p-(7-methoxy-2,2-dimethyl-3-phenyl-4-
CN
     chromanyl)phenoxy]ethyl]-, trans- (8CI)
OTHER NAMES:
     1-[2-[p-(trans-7-Methoxy-2,2-dimethyl-3-phenyl-4-
     chromanyl)phenoxy]ethyl]pyrrolidine
CN
CN
     Centchroman
CN
     Ormeloxifene
CN
     trans-Centchroman
     STEREOSEARCH
FS
     78994-24-8
DR
MF
     C30 H35 N O3
CI
     COM
                ADISINSIGHT, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA,
LC
     STN Files:
       CANCERLIT, CAPLUS, CASREACT, CBNB, CIN, DDFU, DRUGNL, DRUGU,
       DRUGUPDATES, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
       NAPRALERT, PHAR, PROMT, RTECS*, TOXLINE, TOXLIT, USAN, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:
```

Relative stereochemistry.

129 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
129 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> e raloxifen/cn

E1	1	RALOX BHT/CN
E2	1	RALOX LC/CN
E3	0>	RALOXIFEN/CN
E4	1	RALOXIFENE/CN
E5	1	RALOXIFENE HYDROCHLORIDE/CN
E6	3	RALSTONITE/CN
E7	1	RALSTONITE (ALF2(OH))/CN
E8	1	RALSTONITE (ALF2(OH).1/2H2O)/CN
E9	1	RALTITREXED/CN
E10	1	RALUBEN/CN
E11	1	RALUFON DCH/CN
E12	1	RALUFON DL/CN

=> s e4

=> d 12 1

ANSWER 1 OF 1 REGISTRY COPYRIGHT 1999 ACS L2RN 84449-90-1 REGISTRY Methanone, [6-hydroxy-2-(4-hydroxyphenyl)benzo[b]thien-3-yl][4-[2-(1-CN piperidinyl)ethoxy]phenyl]- (9CI) (CA INDEX NAME) OTHER NAMES: Keoxifene CN CN LY 139481 CN Raloxifene [2-(4-Hydroxyphenyl)-6-hydroxybenzo[b] thien-3-yl] [4-(2-(1-hydroxyphenyl)-6-hydroxybenzo[b]CN piperidinyl)ethoxy)phenyl]methanone FS 3D CONCORD C28 H27 N O4 S MF CI COM ADISINSIGHT, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, LC CAPLUS, CASREACT, CEN, CBNB, CIN, DDFU, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, IPA, MEDLINE, MRCK*, PHAR, PROMT, TOXLINE, TOXLIT,

USAN, USPATFULL (*File contains numerically searchable property data) Other Sources: WHO

275 REFERENCES IN FILE CA (1967 TO DATE) 7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 275 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> s e5

L31 "RALOXIFENE HYDROCHLORIDE"/CN

ANSWER 1 OF 1 REGISTRY COPYRIGHT 1999 ACS

=> d 13 1

L3

RN 82640-04-8 REGISTRY Methanone, [6-hydroxy-2-(4-hydroxyphenyl)benzo[b]thien-3-yl][4-[2-(1-CN piperidinyl)ethoxy]phenyl]-, hydrochloride (9CI) (CA INDEX NAME) OTHER NAMES: LY 156758

CN

CN Raloxifene hydrochloride

MF C28 H27 N O4 S . Cl H

CI COM

CRN

STN Files: ADISINSIGHT, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAPLUS, LC CASREACT, CIN, DRUGPAT, DRUGUPDATES, EMBASE, IPA, MRCK*, PHAR, PROMT, TOXLINE, TOXLIT, USAN, USPATFULL

(*File contains numerically searchable property data) (84449 - 90 - 1)

```
HO S O- CH<sub>2</sub>- CH<sub>2</sub>- N
```

HCl

```
161 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
161 REFERENCES IN FILE CAPLUS (1967 TO DATE)
```

=> e droloxifen/cn

```
DROLBAN/CN
E1
             1
E2
             1
                   DROLEPTAN/CN
             0 --> DROLOXIFEN/CN
E3
E4
             1
                   DROLOXIFENE/CN
                   DROLOXIFENE CITRATE/CN
E5
             1
                   DROLOXIFENE N-OXIDE/CN
E6
             1
                   DROLUENE 10/CN
E7
             1
                   DROLUENE 2.5/CN
E8
             1
                   DROLUENE 25/CN
E9
             1
                   DROLUENE 5/CN
             1
E10
                   DROME PROTEIN (ILE-149) (HUMAN CLONE PBL-2)/CN
             1
E11
                   DROME PROTEIN (MET-149) (HUMAN CLONE PBL-2)/CN
E12
```

=> s (e4 or e5 or e6)

- 1 DROLOXIFENE/CN
- 1 "DROLOXIFENE CITRATE"/CN
- 1 "DROLOXIFENE N-OXIDE"/CN
- L4 3 (DROLOXIFENE/CN OR "DROLOXIFENE CITRATE"/CN OR "DROLOXIFENE N-OXIDE"/CN)

=> d 14 1-3

- L4 ANSWER 1 OF 3 REGISTRY COPYRIGHT 1999 ACS
- RN 110025-26-8 REGISTRY
- CN Phenol,
- 4-[1-[4-[2-(dimethyloxidoamino)ethoxy]phenyl]-2-phenyl-1-butenyl](9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Phenol, 4-[1-[4-[2-(dimethylamino)ethoxy]phenyl]-2-phenyl-1-butenyl]-, N-oxide

OTHER NAMES:

- CN Droloxifene N-oxide
- FS 3D CONCORD
- MF C26 H29 N O3
- SR CA
- LC STN Files: CA, CAPLUS, TOXLIT

2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L4 ANSWER 2 OF 3 REGISTRY COPYRIGHT 1999 ACS

RN 97752-20-0 REGISTRY

CN Phenol,

3-[(1E)-1-[4-[2-(dimethylamino)ethoxy]phenyl]-2-phenyl-1-butenyl], 2-hydroxy-1,2,3-propanetricarboxylate (1:1) (salt) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Phenol, 3-[1-[4-[2-(dimethylamino)ethoxy]phenyl]-2-phenyl-1-butenyl]-, (E)-, 2-hydroxy-1,2,3-propanetricarboxylate (1:1) (salt)

OTHER NAMES:

CN Droloxifene citrate

FS STEREOSEARCH

MF C26 H29 N O2 . C6 H8 O7

SR Commission of European Communities

LC STN Files: BIOSIS, CA, CAPLUS, CHEMLIST, DRUGPAT, DRUGUPDATES, MRCK*, PROMT, RTECS*, TOXLIT, ULIDAT, USAN, USPATFULL

(*File contains numerically searchable property data)

Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

CM 1

CRN 82413-20-5 CMF C26 H29 N O2

Double bond geometry as shown.

CM 2

CRN 77-92-9 CMF C6 H8 O7

24 REFERENCES IN FILE CA (1967 TO DATE) 24 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L4 ANSWER 3 OF 3 REGISTRY COPYRIGHT 1999 ACS

RN 82413-20-5 REGISTRY

CN Phenol,

3-[(1E)-1-[4-[2-(dimethylamino)ethoxy]phenyl]-2-phenyl-1-butenyl](9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Phenol, 3-[1-[4-[2-(dimethylamino)ethoxy]phenyl]-2-phenyl-1-butenyl]-, (E)-

OTHER NAMES:

CN 3-Hydroxytamoxifen

CN Droloxifene

CN E-Droloxifene

CN K 060

CN K 060E

CN K 21.060E

FS STEREOSEARCH

MF C26 H29 N O2

CI COM

LC STN Files: ADISINSIGHT, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CBNB, CIN, CSCHEM, DDFU, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, IPA, MEDLINE, MRCK*, PHAR, PROMT, RTECS*, TOXLINE, TOXLIT, ULIDAT, USAN, USPATFULL

(*File contains numerically searchable property data)

Other Sources: WHO

Double bond geometry as shown.

110 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

110 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> d his

(FILE 'HOME' ENTERED AT 17:02:10 ON 15 JUL 1999)

FILE 'REGISTRY' ENTERED AT 17:02:42 ON 15 JUL 1999

E RALOXIFEN/CN

E DROLOXIFEN/CN

E CENTCHROMAN/CN

L1 1 S E3

E RALOXIFEN/CN
L2 1 S E4
L3 1 S E5
E DROLOXIFEN/CN
L4 3 S (E4 OR E5 OR E6)

=> file caplus, uspatfull, medline, biosis

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FILE 'USPATFULL' ENTERED AT 17:06:30 ON 15 JUL 1999
CA INDEXING COPYRIGHT (C) 1999 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 17:06:30 ON 15 JUL 1999

FILE 'BIOSIS' ENTERED AT 17:06:30 ON 15 JUL 1999 COPYRIGHT (C) 1999 BIOSIS(R)

=> s (11 or 12 or 13 or 14)

L5 1460 (L1 OR L2 OR L3 OR L4)

=> s (LHRH OR LUTEIN? (W) HORMONE# (W) RELEAS? (W) HORMONE#)

L6 31888 (LHRH OR LUTEIN? (W) HORMONE# (W) RELEAS? (W) HORMONE#)

=> s 15 and 16

L7 21 L5 AND L6

=> dup rem 17

PROCESSING COMPLETED FOR L7 L8 17 DUP REM L7 (4 DUPLICATES REMOVED)

=> d 18 abs ibib kwic 1-17

FILE 'HOME' ENTERED AT 15:15:18 ON 15 JUL 1999

=> file caplus, uspatfull, medline, biosis

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.15 0.15

FULL ESTIMATED COST

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FILE 'USPATFULL' ENTERED AT 15:15:32 ON 15 JUL 1999 CA INDEXING COPYRIGHT (C) 1999 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 15:15:32 ON 15 JUL 1999

FILE 'BIOSIS' ENTERED AT 15:15:32 ON 15 JUL 1999 COPYRIGHT (C) 1999 BIOSIS(R)

=> s (endometrio? or myoma?)

L1 22402 (ENDOMETRIO? OR MYOMA?)

=> s (lhrh or zoladex or ramorelix or buserelin or antide or cetrorelix)

L2 29052 (LHRH OR ZOLADEX OR RAMORELIX OR BUSERELIN OR ANTIDE OR CETROREL

IX)

=> s 11 and 12

L3 877 L1 AND L2

=> s 11(p)12

L4 548 L1(P) L2

=> s (tamoxifen or raloxifen or droloxifen or centchroman)

L5 21743 (TAMOXIFEN OR RALOXIFEN OR DROLOXIFEN OR CENTCHROMAN)

=> s 14 and 15

L6 5 L4 AND L5

=> dup rem 16

PROCESSING COMPLETED FOR L6 L7 4 DUP REM L6 (1 DUPLICATE REMOVED)

=> d 17 abs ibib kwic 1-4

L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 1999 ACS

AB Combinations of LH-RH analogs and antiestrogens with tissue-selective estrogenic activity are useful for treatment of gynecol. disorders, esp. endometriosis and myomas. Thus, in rats with i.p.

implants of endometrium as a model of endometriosis, the LH-RH antagonist antide (0.5 mg s.c. every 3 days for 4 wk) produced complete regression of cystic foci of endometriosis, but

simultaneously to a redn. in endogenous estrogen level resembling that occurring after ovariectomy, with a decrease in bone d. and an increase in

osteoclast activity. When the antiestrogen raloxifen (3 mg/day orally) was also administered during the period of antide administration, the endometriosis regressed but no decrease in estrogen level occurred.

1997:543582 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 127:140580

Combination of LH-RH analogs and antiestrogens for TITLE:

treatment of gynecological disorders

April,

19970129

INVENTOR (S): Stoeckemann, Klaus; Muhn, Peter

PATENT ASSIGNEE(S): Schering A.-G., Germany

Ger. Offen., 5 pp. SOURCE:

CODEN: GWXXBX DOCUMENT TYPE: Patent German LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PAT	CENT :	NO.		KIND DATE					A	PPLI	CATI	и ис	ο.	DATE				
		19604221			A1 19970731					F 96	-196	 0423	 1	19960129					
										WO 97-EP395									
		w:	AL,	AM,	AU,	ΑZ,	BB,	BG,	BR,	BY,	CA,	CN,	CZ,	EE,	GE,	HU,	IL,	IS,	
			JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LK,	LR,	LS,	LT,	LV,	MD,	MG,	MK,	MN,	MW,	
			MX,	NO,	NZ,	PL,	RO,	RU,	SD,	SG,	SI,	SK,	ТJ,	TM,	TR,	TT,	UA,	UG,	
			US,	UΖ,	VN,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM					
		RW:	KE,	LS,	MW,	SD,	SZ,	ŪG,	ΑT,	BE,	CH,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	
			ΙE,	IT,	LU,	MC,	NL,	PΤ,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	ML,	
			MR,	NE,	SN,	TD,	TG												
	AU	9715969		A1 19970822				AU 97-15969					19970129						
	EΡ	877621		A	1	19981118			EP 97-902258					19970129					
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
			•	SI,	•														
									CN 97-191940					19970129					
	ИО	9803	465		A		1998	0918		NO 98-3465					19980728				
PRIC	ORITY	APP	LN.	INFO	. :					D	E 96	-196	0423	1	1996	0129			

AB Combinations of LH-RH analogs and antiestrogens with tissue-selective estrogenic activity are useful for treatment of gynecol. disorders, esp. endometricsis and myomas. Thus, in rats with i.p. implants of endometrium as a model of endometriosis, the LH-RH antagonist antide (0.5 mg s.c. every 3 days for 4 wk) produced complete regression of cystic foci of endometriosis, but simultaneously to a redn. in endogenous estrogen level resembling that occurring after ovariectomy, with a decrease in bone d. and an increase in

WO 97-EP395

osteoclast activity. When the antiestrogen raloxifen (3 mg/day orally) was also administered during the period of antide administration, the endometriosis regressed but no decrease in estrogen level occurred.

ST LHRH analog antiestrogen endometriosis treatment; antide raloxifen endometriosis treatment; myoma treatment LHRH analog antiestrogen; gynecol disorder LHRH analog antiestrogen

9034-40-6D, LHRH, analogs 31477-60-8, **Centchroman** IT 53714-56-0, Leuprorelin 57982-77-1 65807-02-5, Zoladex 82413-20-5, 84449-90-1, Raloxifene 112568-12-4, Antide 120287-85-6, Droloxifene Cetrorelix 127932-90-5, Ramorelix 193147-32-9 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combination of LH-RH analogs and antiestrogens for treatment of

• }

```
ANSWER 2 OF 4 BIOSIS COPYRIGHT 1999 BIOSIS
L7
     Tamoxifen used for adjuvant therapy in breast cancer, has a
AB
     complex and unclear action on endometrium and myometrium. Many authors
     demonstrated endometrial proliferous changes in peri and post menopausal
     women. Our study shows the development of myomas in three
     patients without uterine pathology before tamoxifen therapy, and
     the increase of a polyp and a myoma after tamoxifen
     therapy. Moreover, we observed the development of a myoma in a
     patient after one year tamoxifen in association with
     LHRH analogue therapy. It is necessary to continue our study with
     a larger number of patients to assess the hyperplasia effect of
     tamoxifen.
                    1993:345129 BIOSIS
ACCESSION NUMBER:
                    PREV199396042129
DOCUMENT NUMBER:
TITLE:
                    Uterine changes during tamoxifen therapy.
                    Rullo, S.; Tagliaferri, T.; Bandiera, F.; Fiorelli, C.;
AUTHOR (S):
                    Felici, A.; Piccioni, M. G.; Framarino Dei Malatesta, M.
L.
                    (1) III Clin. Osterica Ginecol., Univ. di Roma "La
CORPORATE SOURCE:
                    Sapienza", Policlin. Umberto I, 00161 Roma Italy
                    Clinical and Experimental Obstetrics & Gynecology, (1993)
SOURCE:
                    Vol. 20, No. 2, pp. 116-119.
                    ISSN: 0390-6663.
DOCUMENT TYPE:
                    Article
LANGUAGE:
                    English
     Uterine changes during tamoxifen therapy.
TI
     Tamoxifen used for adjuvant therapy in breast cancer, has a
AΒ
     complex and unclear action on endometrium and myometrium. Many authors
     demonstrated endometrial proliferous changes in peri and post menopausal
     women. Our study shows the development of myomas in three
     patients without uterine pathology before tamoxifen therapy, and
     the increase of a polyp and a myoma after tamoxifen
     therapy. Moreover, we observed the development of a myoma in a
     patient after one year tamoxifen in association with
     LHRH analogue therapy. It is necessary to continue our study with
     a larger number of patients to assess the hyperplasia effect of
     tamoxifen.
     Major Concepts
TΤ
        Development; Oncology (Human Medicine, Medical Sciences);
Pharmacology;
        Reproductive System (Reproduction); Toxicology
     Chemicals & Biochemicals
TT
        TAMOXIFEN
RN
     10540-29-1 (TAMOXIFEN)
     ANSWER 3 OF 4 MEDLINE
                                                        DUPLICATE 1
L7
AB
     In young women chronic use of luteinizing hormone releasing hormone (
     LHRH) agonists such as buserelin to treat
     endometriosis leads to estrogen-deficiency bone loss.
     Tamoxifen citrate is an estrogen agonist/antagonist which protects
     the skeleton from osteopenia when ovarian hormones are depleted. The
     present study was undertaken to determine whether tamoxifen
     citrate (20 mg/kg body wt/week s.c.) could prevent the osteopenic effect
     of buserelin (25 micrograms/kg body wt/day s.c.). Four groups of
     rats with 45Ca-labelled bones were studied for 4 weeks: group A--placebo
     controls; group B--buserelin; Group C--tamoxifen;
     group D--buserelin+tamoxifen. Bone resorption was
     monitored by measuring the urinary excretion of 45Ca and hydroxyproline.
     Interestingly buserelin lowered both blood 17 beta-estradiol
     values and uterine weights in the presence and absence of
     tamoxifen. However, tamoxifen slowed bone breakdown and
     inhibited the bone-thinning effects of buserelin. Total body
     calcium values (mg; means +/- S.D.) were: 2227 +/- 137; 1926 +/- 124;
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+/- 94 and 2268 +/- 163, in groups A to D respectively. Osteopenia was thus present only in group B (P less than 0.001). Because tamoxifen inhibits estrogen-deficiency bone loss in buserelin-treated rats without depressing the hypoestrogenic actions of this LHRH-agonist, we suggest that use of tamoxifen to protect the skeleton during LHRH-agonist therapy in young women should be explored. Tamoxifen citrate might also help to prevent postmenopausal osteoporosis. MEDLINE ACCESSION NUMBER: 92404819 DOCUMENT NUMBER: 92404819 Tamoxifen in the rat prevents estrogen-deficiency TITLE: bone loss elicited with the LHRH agonist buserelin. AUTHOR: Goulding A; Gold E; Feng W Department of Medicine, University of Otago Medical CORPORATE SOURCE: School, Dunedin, New Zealand.. BONE AND MINERAL, (1992 Aug) 18 (2) 143-52. SOURCE: Journal code: BMI. ISSN: 0169-6009. Netherlands PUB. COUNTRY: Journal; Article; (JOURNAL ARTICLE) English LANGUAGE: FILE SEGMENT: Priority Journals 199212 ENTRY MONTH: Tamoxifen in the rat prevents estrogen-deficiency bone loss elicited with the LHRH agonist buserelin. In young women chronic use of luteinizing hormone releasing hormone (AΒ LHRH) agonists such as buserelin to treat endometriosis leads to estrogen-deficiency bone loss. Tamoxifen citrate is an estrogen agonist/antagonist which protects the skeleton from osteopenia when ovarian hormones are depleted. The present study was undertaken to determine whether tamoxifen citrate (20 mg/kg body wt/week s.c.) could prevent the osteopenic effect of buserelin (25 micrograms/kg body wt/day s.c.). Four groups of rats with 45Ca-labelled bones were studied for 4 weeks: group A--placebo controls; group B--buserelin; Group C--tamoxifen; group D--buserelin+tamoxifen. Bone resorption was monitored by measuring the urinary excretion of 45Ca and hydroxyproline. Interestingly buserelin lowered both blood 17 beta-estradiol values and uterine weights in the presence and absence of tamoxifen. However, tamoxifen slowed bone breakdown and inhibited the bone-thinning effects of buserelin. Total body calcium values (mg; means +/- S.D.) were: 2227 +/- 137; 1926 +/- 124; 2233 +/- 94 and 2268. . . 163, in groups A to D respectively. Osteopenia was thus present only in group B (P less than 0.001). Because tamoxifen inhibits estrogen-deficiency bone loss in buserelin-treated rats without depressing the hypoestrogenic actions of this LHRH-agonist, we suggest that use of tamoxifen to protect the skeleton during LHRH-agonist therapy in young women should be explored. Tamoxifen citrate might also help to prevent postmenopausal osteoporosis. CTBL, blood *Estrogens: DF, deficiency Gonadorelin: ME, metabolism Hydroxyproline: UR, urine Organ Weight: DE, drug effects Rats Rats, Inbred Strains *Tamoxifen: PD, pharmacology Uterus: DE, drug effects 10540-29-1 (Tamoxifen); 33515-09-2 (Gonadorelin); 50-28-2 RN (Estradiol); 51-35-4 (Hydroxyproline); 57982-77-1 (Buserelin); 7440-70-2

(Calcium)

ANSWER 4 OF 4 BIOSIS COPYRIGHT 1999 BIOSIS L7 The effect of medical oophorectomy induced by treatment with the AB luteinizing hormone-releasing hormone (LH-RH) agonist[D-Trp6,des-Gly-NH210]LH-RH ethylamide was studied in 34 patients with laparoscopically proven endometriosis. Tamoxifen was administered during the 1st month of therapy to prevent flare-up of the disease during the estrogen surge. Fifteen women had a decrease of their laparoscopy scores translated into an improvement in the stage of disease, whereas in 12 others, the decrease in their scores was not enough to allow a change of disease stage. The 2nd laparoscopy was not performed in 7 women. Medical oophorectomy, after daily injection of the LH-RH agonist (LH-RH-a), was accompanied by low levels of circulating estradiol. The serum concentration of all .DELTA.4-3-ketosteroids was significantly decreased during medical oophorectomy, whereas the level of circulating .DELTA.5-3.beta.-hydroxysteroids was not altered except for pregnenolone. The present data indicate that medical oophorectomy induced by an LH-RH-a in association with tamoxifen is a very efficient and well tolerated therapy in endometriosis. ACCESSION NUMBER: 1990:452916 BIOSIS DOCUMENT NUMBER: BA90:103556 HORMONAL AND BIOCHEMICAL CHANGES DURING TREATMENT OF TITLE: ENDOMETRIOSIS WITH THE LUTEINIZING HORMONE-RELEASING HORMONE LHRH AGONIST D TRP-6 DES-GLY-AMIDE-10 LHRH ETHYLAMIDE. DUPONT A; DUPONT P; BELANGER A; MAILOUX J; CUSAN L; LABRIE AUTHOR (S): LAB. MOL. ENDOCRINOL., CHUL RES. CENT., 2705 LAURIER CORPORATE SOURCE: BLVD., QUEBEC G1V 4G2, QUEBEC, CANADA. FERTIL STERIL, (1990) 54 (2), 227-232. SOURCE: CODEN: FESTAS. ISSN: 0015-0282. FILE SEGMENT: BA; OLD English LANGUAGE: HORMONAL AND BIOCHEMICAL CHANGES DURING TREATMENT OF ENDOMETRIOSIS WITH THE LUTEINIZING HORMONE-RELEASING HORMONE LHRH AGONIST D TRP-6 DES-GLY-AMIDE-10 LHRH ETHYLAMIDE. induced by treatment with the luteinizing hormone-releasing hormone AB. (LH-RH) agonist[D-Trp6, des-Gly-NH210]LH-RH ethylamide was studied in 34 patients with laparoscopically proven endometriosis. Tamoxifen was administered during the 1st month of therapy to prevent flare-up of the disease during the estrogen surge. Fifteen women. . . was not altered except for pregnenolone. The present data indicate that medical oophorectomy induced by an LH-RH-a in association with tamoxifen is a very efficient and well tolerated therapy in endometriosis. Miscellaneous Descriptors IT HUMAN DECAPEPTYL TAMOXIFEN METABOLIC-DRUG ESTRADIOL INFERTILITY OOPHORECTOMY 50-28-2 (ESTRADIOL) RN 9002-67-9 (LUTEINIZING HORMONE) 9034-40-6 (LHRH) 10540-29-1 (TAMOXIFEN) 57773-63-4 (DECAPEPTYL) => d his (FILE 'HOME' ENTERED AT 15:15:18 ON 15 JUL 1999)

FILE 'CAPLUS, USPATFULL, MEDLINE, BIOSIS' ENTERED AT 15:15:32 ON 15 JUL 1999

L1 22402 S (ENDOMETRIO? OR MYOMA?)

L2 29052 S (LHRH OR ZOLADEX OR RAMORELIX OR BUSERELIN OR ANTIDE OR

CETRO

L3 877 S L1 AND L2

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L4 548 S L1(P)L2
L5 21743 S (TAMOXIFEN OR RALOXIFEN OR DROLOXIFEN OR CENTCHROMAN)
L6 5 S L4 AND L5
L7 4 DUP REM L6 (1 DUPLICATE REMOVED)

=> s 13 and 15

L8 40 L3 AND L5

=> dup rem 18

PROCESSING COMPLETED FOR L8
L9 39 DUP REM L8 (1 DUPLICATE REMOVED)
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=> s 19 and py <=1997

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3 FILES SEARCHED...

24 L9 AND PY <=1997

=> d 110 abs ibib kwic 1-24

L10 ANSWER 1 OF 24 CAPLUS COPYRIGHT 1999 ACS

Combinations of LH-RH analogs and antiestrogens with tissue-selective AB estrogenic activity are useful for treatment of gynecol. disorders, esp. endometriosis and myomas. Thus, in rats with i.p. implants of endometrium as a model of endometriosis, the LH-RH antagonist antide (0.5 mg s.c. every 3 days for 4 wk) produced complete regression of cystic foci of endometriosis, but

simultaneously to a redn. in endogenous estrogen level resembling that occurring after ovariectomy, with a decrease in bone d. and an increase in

osteoclast activity. When the antiestrogen raloxifen (3 mg/day orally) was also administered during the period of antide administration, the endometriosis regressed but no decrease in estrogen level occurred.

ACCESSION NUMBER:

1997:543582 CAPLUS

DOCUMENT NUMBER:

127:140580

TITLE:

Combination of LH-RH analogs and antiestrogens for

treatment of gynecological disorders

INVENTOR(S):

Stoeckemann, Klaus; Muhn, Peter

PATENT ASSIGNEE(S):

Schering A.-G., Germany

SOURCE:

Ger. Offen., 5 pp. CODEN: GWXXBX

Patent

DOCUMENT TYPE: LANGUAGE:

German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

					KIND DATE							CATI						
		DE 19604231			A1 19970731										0129	<		
	WO	9727863			Α	1	19970807			W	o 97	-EP3	95	19970129		<		
		w:	AL,	AM,	AU,	ΑZ,	BB,	BG,	BR,	BY,	CA,	CN,	CZ,	EE,	GE,	HU,	IL,	IS,
			JP,	ΚE,	KG,	KP,	KR,	ΚZ,	LK,	LR,	LS,	LT,	LV,	MD,	MG,	MK,	MN,	MW,
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			US,	UZ,	VN,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM				
		RW:	•		•			•						-	FI,			
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					SN,													
				A1 19970822														
	EΡ	P 877621			Al 19981118													
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
							FI,											
					A 19990303													
	NO 9803465					A 19980918												
PRIORITY APPLN. INFO			.:										19960129					
										W	o 97	-EP3	95		1997	0129		
ΡI																		
	PATENT NO.				KIND DATE			•	APPLICATION NO.					DATE				
ΡI		1960					1997	0731						1	1996	0129	<	
	WO 9727863																	

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AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, EE, GE, HU, IL, IS,
             JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW,
             MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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             MR, NE, SN, TD, TG
                                            AU 97-15969
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                       A1
                             19970822
     AU 9715969
                             19981118
                                            EP 97-902258
                                                              19970129
                       A1
     EP 877621
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                                             CN 97-191940
                                                              19970129
                             19990303
     CN 1209750
                       Α
                             19980918
                                            NO 98-3465
                                                              19980728
     NO 9803465
                       Α
     Combinations of LH-RH analogs and antiestrogens with tissue-selective
AB
     estrogenic activity are useful for treatment of gynecol. disorders, esp.
     endometriosis and myomas. Thus, in rats with i.p.
     implants of endometrium as a model of endometriosis, the LH-RH
     antagonist antide (0.5 mg s.c. every 3 days for 4 wk) produced
     complete regression of cystic foci of endometriosis, but
     simultaneously to a redn. in endogenous estrogen level resembling that
     occurring after ovariectomy, with a decrease in bone d. and an increase
in
     osteoclast activity. When the antiestrogen raloxifen (3 mg/day
     orally) was also administered during the period of antide
     administration, the endometriosis regressed but no decrease in
     estrogen level occurred.
ST
     LHRH analog antiestrogen endometriosis treatment;
     antide raloxifen endometriosis treatment;
     myoma treatment LHRH analog antiestrogen; gynecol
     disorder LHRH analog antiestrogen
     Endometriosis
IT
     Myoma
        (combination of LH-RH analogs and antiestrogens for treatment of
        gynecol. disorders)
     9034-40-6D, LHRH, analogs
                                  31477-60-8, Centchroman
IT
     53714-56-0, Leuprorelin
                                57982-77-1
                                             65807-02-5, Zoladex
                                84449-90-1, Raloxifene
     82413-20-5, Droloxifene
                                                          112568-12-4,
              120287-85-6, Cetrorelix
                                         127932-90-5,
     Antide
                 193147-32-9
     Ramorelix
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (combination of LH-RH analogs and antiestrogens for treatment of
        gynecol. disorders)
     ANSWER 2 OF 24 CAPLUS COPYRIGHT 1999 ACS
L10
     Since uterine leiomyomata (fibroids) are not found in conditions where
     estradiol is either absent or present only in low concns., estradiol is
     considered to be an important factor in the control of fibroid growth.
Τo
     detn. whether this is due to a direct effect on the tissue, estradiol and
     progesterone receptors were measured in tissue removed at hysterectomy
     from normally cycling women, women who had received the
     qonadotropin-releasing hormone (GnRH) agonist Zoladex (ICI
     118630) as a s.c. depot given at monthly intervals for 3 mo
     preoperatively, and women who had received the antiestrogen
     tamoxifen (20 mg daily) for 3 mo before surgery. Both unoccupied
     estradiol receptors (measured by sepg. bound from free hormone with
     dextran-coated charcoal) and total receptor populations (as measured by
an
     enzyme immunoassay) were measured in each fibroid and adjoining
     myometrium. There was more binding of both estradiol and progestogen to
     fibroid than to myometrium in both the control and agonist-treated
     Estradiol binding to fibroids in women treated with Zoladex
     exceeded that in the normally cycling women which in turn exceeded that
in
```

the tamoxifen-treated group. However, the binding of progestogen, measured by dextran-coated charcoal, showed the reverse trend. These results may be explained by the low circulating estradiol concn. in the GnRH agonist-treated women, leading to low receptor

occupancy.

ACCESSION NUMBER:

1989:206008 CAPLUS

DOCUMENT NUMBER: 110:206008

TITLE:

The binding of steroids to myometrium and leiomyomata

(fibroids) in women treated with the

gonadotropin-releasing hormone agonist Zoladex

(ICI 118630)

AUTHOR (S):

Lumsden, M. A.; West, C. P.; Hawkins, R. A.; Bramley,

T. A.; Rumgay, L.; Baird, D. T.

CORPORATE SOURCE:

Cent. Reprod. Biol., Univ. Edinburgh, Edinburgh, EH3

9EW, UK

SOURCE:

J. Endocrinol. (1989), 121(2), 389-96

CODEN: JOENAK; ISSN: 0022-0795

DOCUMENT TYPE:

Journal English

LANGUAGE:

The binding of steroids to myometrium and leiomyomata (fibroids) in women treated with the gonadotropin-releasing hormone agonist Zoladex (ICI 118630)

J. Endocrinol. (1989), 121(2), 389-96 SO

CODEN: JOENAK; ISSN: 0022-0795

. . . were measured in tissue removed at hysterectomy from normally AΒ cycling women, women who had received the gonadotropin-releasing hormone (GnRH) agonist Zoladex (ICI 118630) as a s.c. depot given at monthly intervals for 3 mo preoperatively, and women who had received the antiestrogen tamoxifen (20 mg daily) for 3 mo before surgery. Both unoccupied estradiol receptors (measured by sepg. bound from free hormone with. . . to fibroid than to myometrium in both the control

and

agonist-treated groups. Estradiol binding to fibroids in women treated with Zoladex exceeded that in the normally cycling women which in turn exceeded that in the tamoxifen-treated group. However, the binding of progestogen, measured by dextran-coated charcoal, showed the reverse trend. These results may be explained by.

leiomyomata steroid receptor; LHRH agonist uterus steroid ST receptor

IT Myoma

(leio-, estradiol and progestogen receptors of, in women, gonadotropin-releasing hormone agonist effect on)

IT 65807-02-5, **Zoladex**

RL: BIOL (Biological study)

(steroid receptors of uterus response to, in women)

L10 ANSWER 3 OF 24 USPATFULL

Inhibitors of sex steroid activity, for example those having the AB general

structure ##STR1## may be used as part of a pharmaceutical composition to provide antiestrogenic effects and/or to suppress estrogen synthesis.

Such pharmaceutical compositions are useful for the treatment of breast cancer or other diseases whose progress is aided by activation of sex steroid receptors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

97:104491 USPATFULL

TITLE: INVENTOR(S):

Sex steroid activity inhibitors Labrie, Fernand, Quebec, Canada Merand, Yves, Quebec, Canada

PATENT ASSIGNEE(S):

Endorecherche Inc., Quebec, Canada (non-U.S.

corporation)

DATE NUMBER

US 5686465 19971111 PATENT INFORMATION: 19950607 US 95-485739 (8) APPLICATION INFO.: Division of Ser. No. US 94-285354, filed on 3 Aug 1994 RELATED APPLN. INFO.: which is a division of Ser. No. US 91-801704, filed on 2 Dec 1991, now patented, Pat. No. US 5395842 which is a continuation-in-part of Ser. No. US 89-377010, filed on 7 Jul 1989, now abandoned And Ser. No. US 88-265150, filed on 31 Oct 1988, now abandoned DOCUMENT TYPE: Utility Criares, Theodore J. PRIMARY EXAMINER: Ostrolenk, Faber, Gerb & Soffen, LLP LEGAL REPRESENTATIVE: NUMBER OF CLAIMS: 5 EXEMPLARY CLAIM: 1 5 Drawing Figure(s); 5 Drawing Page(s) NUMBER OF DRAWINGS: 3210 LINE COUNT: CAS INDEXING IS AVAILABLE FOR THIS PATENT. <--US 5686465 19971111 ΡĪ H. Mouridsen et al., Cancer Treatm. Rev. 5: 131-141 (1978), discloses SUMM that Tamoxifen, an antiestrogen, is effective in remission of advanced breast cancer in about 30 percent of the women patients treated. SUMM The combined use of the antiestrogen Tamoxifen and a luteinizing hormone-releasing hormone agonist, Buserelin, is also known for treatment of breast cancer. See, for instance, Klijn et al. J. Steroid Biochem. 420: no. 6B,. . . male animals including humans whose testicular hormonal SUMM secretions are blocked by surgical or chemical means, e.g., by use of an LHRH agonist, e.g., [D-Trp.sup.6, des-Gly-NH.sub.2.sup.10] LHRH ethylamide. The treatment includes administering an antiandrogen, e.g., flutamide in association with at least one inhibitor of sex steroid biosynthesis,. U.S. Pat. No. 4,472,382 relates to a method of treating prostate cancer SUMM using the combination of an antiandrogen and an LHRH agonist. . in the treatment of estrogen-related diseases. These diseases SUMM include, but are not limited to breast cancer, uterine cancer, ovarian cancer, endometriosis, uterine fibroma, precocious puberty and benign prostatic hyperplasia. When administered systemically, pharmaceuticals of the inventions may DETD be used in the treatment of breast cancer, uterine cancer, ovarian cancer, endometriosis, uterine fibroma, precocious puberty and benign prostatic hyperplasia. ANSWER 4 OF 24 USPATFULL L10 The present invention relates to a purified, easily produced AΒ poly-.beta.-1.fwdarw.4-N-acetylglucosamine (p-GlcNAc) polysaccharide species useful in collagen copolymers. The p-GlcNAc of the invention is a polymer of high molecular weight whose constituent monosaccharide sugars are attached in a .beta.-1.fwdarw.4 conformation, and which is free of proteins, and substantially free of single amino acids, and other organic and inorganic contaminants. In addition, derivatives and reformulations of p-GlcNAc are described. The present invention further relates to methods for the purification of the p-GlcNAc of the invention

from microalgae, preferably diatom, starting sources. Still further, the

invention relates to methods for the derivatization and reformulation of

the p-GlcNAc. Additionally, the present invention relates to the uses of

pure p-GlcNAc, its derivatives, and/or its reformulations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 97:104147 USPATFULL

TITLE: Poly-.beta.-1.fwdarw.4-N-acetylucosamine copolymer

composition with collagen

INVENTOR(S): Vournakis, John N., Hanover, NH, United States

Finkielsztein, Sergio, Chestnut Hill, MA, United

States

Pariser, Ernest R., Belmont, MA, United States

Helton, Mike, Memphis, TN, United States

PATENT ASSIGNEE(S): Marine Polymer Technologies, Inc., Danvers, MA, United

States (U.S. corporation)

NUMBER DATE

PATENT INFORMATION: US 5686115 19971111 <--

APPLICATION INFO.: US 95-470912 19950606 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 94-347911, filed

on

1 Dec 1994, now patented, Pat. No. US 5623064 which is a continuation-in-part of Ser. No. US 93-160569, filed

<--

on 1 Dec 1993, now patented, Pat. No. US 5622834

DOCUMENT TYPE: Utility PRIMARY EXAMINER: Kight, John

ASSISTANT EXAMINER: Fonda, Kathleen Kahler

LEGAL REPRESENTATIVE: Pennie & Edmonds

NUMBER OF CLAIMS: 20 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 72 Drawing Figure(s); 58 Drawing Page(s)

LINE COUNT: 4073

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

PI US 5686115 19971111

DETD . . . (ara-C) are contemplated for use in the invention as an improved treatment for acute nonlymphocytic leukemia. Other synergistic combinations include tamoxifen with cisplatin for breast

cancer, and prostaglandins with cisplatin for breast and prostate cancer. Additionally, many other synergistic combinations of. . .

DETD . . . prednisolone and dexamethasone), estrogens,

(diethylstibesterol, estradiol, esterified estrogens, conjugated estrogen, chlorotiasnene), progestins (medroxyprogesterone acetate, hydroxy progesterone caproate, megestrol acetate), antiestrogens (

tamoxifen), aromastase inhibitors (aminoglutethimide), androgens
 (testosterone propionate, methyltestosterone, fluoxymesterone,
 testolactone), antiandrogens (flutamide), LHRH analogues
 (leuprolide acetate), and endocrines for prostate cancer

(ketoconazole).

DETD . . . in trauma wounds, for example, spleen, liver and blood vessel injuries; in standard and minimally invasive surgical procedures, for example, endometriosis surgery and operations on the gallbladder; in soft and hard tissue wound repair, for example, skin wounds and burn healing; . .

L10 ANSWER 5 OF 24 USPATFULL

The present invention relates to a purified, easily produced poly-.beta.-1.fwdarw.4-N-acetylglucosamine (p-GlcNAc) polysaccharide species useful in drug compositions. The p-GlcNAc of the invention is a polymer of high molecular weight whose constituent monosaccharide

sugars

are attached in a .beta.-1.fwdarw.4 conformation, and which is free of proteins, and substantially free of single amino acids, and other organic and inorganic contaminants. In addition, derivatives and reformulations of p-GlcNAc are described. The present invention further relates to methods for the purification of the p-GlcNAc of the

invention

from microalgae, preferably diatom, starting sources. Still further,

the

invention relates to methods for the derivatization and reformulation of

the p-GlcNAc. Additionally, the present invention relates to the uses of

pure p-GlcNAc, its derivatives, and/or its reformulations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

97:47398 USPATFULL

TITLE:

Methods and compositions for poly-.beta.-1-4-N-

acetylglucosamine chemotherapeutics

INVENTOR(S):

Vournakis, John N., Hanover, NH, United States

Finkielsztein, Sergio, Chestnut Hill, MA, United

States

Pariser, Ernest R., Belmont, MA, United States

Helton, Mike, Memphis, TN, United States

PATENT ASSIGNEE(S):

Marine Polymer Technologies, Inc., Danvers, MA, United

States (U.S. corporation)

NUMBER DATE

PATENT INFORMATION:

US 5635493 19970603

APPLICATION INFO.:

US 95-471545 19950606 (8)

RELATED APPLN. INFO.:

Continuation-in-part of Ser. No. US 94-347911, filed

1 Dec 1994 which is a continuation-in-part of Ser. No. US 93-160569, filed on 1 Dec 1993

DOCUMENT TYPE:
PRIMARY EXAMINER:

Utility Kight, John

ASSISTANT EXAMINER:

Fonda, Kathleen Kahler

LEGAL REPRESENTATIVE:

Pennie & Edmonds

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 16 1

NUMBER OF DRAWINGS:

73 Drawing Figure(s); 58 Drawing Page(s)

LINE COUNT: 3937

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

PI US 5635493 19970603

<-**-**

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DETD . . . (ara-C) are contemplated for use in the invention as an improved treatment for acute nonlymphocytic leukemia. Other synergistic combinations include tamoxifen with cisplatin for breast cancer, and prostaglandins with cisplatin for breast and prostate cancer. Additionally, many other synergistic combinations of. . .

DETD . . . prednisolone and dexamethasone), estrogens, (diethylstibesterol, estradiol, esterified estrogens, conjugated estrogen, chlorotiasnene), progestins (medroxyprogesterone acetate, hydroxy progesterone caproate, megestrol acetate), antiestrogens (

tamoxifen), aromastase inhibitors (aminoglutethimide), androgens
 (testosterone propionate, methyltestosterone, fluoxymesterone,
 testolactone), antiandrogens (flutamide), LHRH analogues
 (leuprolide acetate), and endocrines for prostate cancer

(ketoconazole).

DETD . . . in trauma wounds, for example, spleen, liver and blood vessel injuries; in standard and minimally invasive surgical procedures, for example, endometriosis surgery and operations on the gallbladder; in soft and hard tissue wound repair, for example, skin wounds and burn healing; . . .

L10 ANSWER 6 OF 24 USPATFULL

AB Certain toxic compounds (T) such as, for example, compounds based upon diphtheria toxin, ricin toxin, pseudomonas exotoxin, .alpha.-amanitin, pokeweed antiviral protein (PAP), ribosome inhibiting proteins, especially the ribosome inhibiting proteins of barley, wheat, corn,

rye,

gelonin and abrin, as well as certain cytotoxic chemicals such as, for example, melphalan and daunomycin can be conjugated to certain analogs of gonadotropin-releasing hormone to form a class of compounds which, when injected into an animal, destroy the gonadotrophs of the animal's anterior pituitary gland. Hence such compounds may be used to sterilize such animals and/or to treat certain sex hormone related diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT. 97:42855 USPATFULL ACCESSION NUMBER:

TITLE:

INVENTOR (S):

Method for inactivating gonadotrophs

Nett, Torrance M., Ft. Collins, CO, United States

Glode, Leonard M., Aurora, CO, United States

Colorado State University Research Foundation, Fort PATENT ASSIGNEE(S):

Colllins, CO, United States (U.S. corporation)

DATE NUMBER ______

PATENT INFORMATION:

RELATED APPLN. INFO.:

US 5631229

19970520

APPLICATION INFO.:

US 93-88434

19930707 (8)

Division of Ser. No. US 92-837639, filed on 14 Feb

1992, now patented, Pat. No. US 5378688 which is a

continuation-in-part of Ser. No. US 89-314653, filed

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on

23 Feb 1989, now abandoned

DOCUMENT TYPE:

Utility

PRIMARY EXAMINER:

Davenport, Avis M.

LEGAL REPRESENTATIVE: Sheridan Ross & McIntosh

27

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

8 Drawing Figure(s); 8 Drawing Page(s)

NUMBER OF DRAWINGS: LINE COUNT:

1459

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

PΙ

US 5631229 19970520

. . . of the steroidal hormones, estradiol, progesterone and SUMM testosterone. It should also be noted that the terms "GnRH" (gonadotropin-releasing hormone) and "LHRH" (luteinizing hormone-releasing hormone) are sometimes used interchangeably in the literature. For the purposes of describing the prior art both terms.

SUMM

. . regard was recently published in the INTERNATIONAL JOURNAL OF PHARMACOLOGY 76: R5-R8 by Singh et al. entitled "Controlled release of LHRH-DT from bioerodible hydrogel microspheres." Generally speaking, it teaches that a natural GnRH/diphtheria toxin can be used

as

a vaccine. In this case the LHRH-DT molecule induces production of antibodies to GnRH which then serve to inactivate endogenous LHRH in the circulation. Without the endogenous LHRH, there is no stimulation of the anterior pituitary gland to secrete LH and the gonads will cease functioning. However, as.

SUMM

. . . medicine as well. For example, the potential for achieving chemical castration (rather than "surgical" castration) with certain luteinizing hormone-releasing hormone (LHRH) analogs has been reported (see for example, Javadpour, N., Luteinizing Hormone-Releasing Hormone (LHRH) in Disseminated Prostatic Cancer; 1M, Vol. 9, No. 11, November 1988). Table I below gives the structure of

LHRH and the structure of certain analogs (e.g., Goserelin, Leuprolide, Buserelin and Nafarelin) of LHRH which

are capable of temporarily suppressing luteinizing hormone secretion

and

thereby suppressing the gonads. As a consequence, these LHRH analogs have come to be regarded as a promising new class of agents for the treatment of various host-dependent diseases, especially prostatic cancer. In referring to Table I, it first should be noted that

LHRH has a decapeptide structure and that substitution of certain amino acids in the sixth and tenth positions of the LHRH produce analogs which render agonists that are up to 100 times more potent than the parent LHRH compound (hence these compounds are often referred to as "superagonists"). The structures of

LHRH and the most commonly known LHRH superagonists are listed below.

STRUCTURES OF LHRH AND SOME SUPERAGONISTS

(Superagonists have substitutions at positions 6 and 10)

##STR1##

SUPERAGONISTS:

Subs. at 6 Subs. at 10 Name

Terminator

Goserelin:

Amide AzaGly D-Ser(tBu)

Leuprolide:

des-Gly Ethylamide D-Leu

Buserelin:

des-Gly Ethylamide D-Ser(tBu)

Nafarelin:

D-2-NaphthylAla

Amide None

SUMM . . . inhibit steroid-dependent tumor growth is through administration of counter-regulatory hormones (e.g., DES in prostate cancer), sex-steroid hormone binding inhibitors (e.g., tamoxifen in breast cancer) or surgical castration. Thus the potential medical uses of such chemical castration compounds are vast and varied.. . . appropriately administered sex steroids, desirable antifertility

effects can be achieved. Another area of application in human medicine is treatment of endometriosis. This condition, which produces painful growth of endometrial tissue in the female peritoneum and

pelvis

also responds to inhibition of. . .

What is claimed is: CLM

> wherein said sex hormone related disease is selected from the group consisting of breast cancer, prostate cancer, pancreatic cancer, and endometriosis.

L10 ANSWER 7 OF 24 USPATFULL

Methods of treatment and prevention of estrogen-related diseases, and AB οf

fertility control, include low dose (e.g. less than 50 nanomolar serum concentration) administration of certain anabolic steroids, progestins and other substantially non-masculinizing androgenic compounds. Sustained release formulations substantially free of organic solvent, and sustained release formulations for maintaining low serum levels of androgen are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 97:40782 USPATFULL

TITLE: Controlled release systems and low dose androgens

Labrie, Fernand, Quebec, Canada INVENTOR(S): Lepage, Martin, Quebec, Canada

Endorecherche Inc., Quebec, Canada (non-U.S. PATENT ASSIGNEE(S):

corporation)

NUMBER DATE PATENT INFORMATION: US 5629303 19970513

US 95-398096 19950303 (8) APPLICATION INFO.:

Division of Ser. No. US 92-900817, filed on 24 Jun RELATED APPLN. INFO.:

1992, now patented, Pat. No. US 5434146 which is a continuation-in-part of Ser. No. US 91-724532, filed

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on

28 Jun 1991, now abandoned

DOCUMENT TYPE: Utility

Nutter, Nathan M. PRIMARY EXAMINER:

LEGAL REPRESENTATIVE: Ostrolenk, Faber, Gerb & Soffen, LLP

NUMBER OF CLAIMS: 16

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EXEMPLARY CLAIM:
                       15 Drawing Figure(s); 9 Drawing Page(s)
NUMBER OF DRAWINGS:
                        2380
LINE COUNT:
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       US 5629303 19970513
      This invention relates to a method for treating or preventing breast
SUMM
and
       endometrial cancer, bone loss, and for treating endometriosis
       in susceptible warm-blooded animals including humans involving
       administration of a compound possessing androgenic activity, and to
kits
      containing active ingredients.
            . for breast and endometrial cancer as well as for the
SUMM
prevention
       and treatment of bone loss and for treatment of endometriosis.
       The main approaches for the treatment of already developed breast
cancer
      are related to the inhibition of estrogen action and/or.
         . . two procedures giving irreversible castration. Recently, a
SUMM
       reversible form of castration has been achieved by utilizing
Luteinizing
      Hormone-Releasing Hormone Agonists (LHRH agonists) which,
       following inhibition of secretion of bioactive Luteinizing Hormone (LH)
      by the pituitary gland, decrease serum estrogens to castrated.
      Several studies show that treatment of premenopausal breast cancer
SUMM
      patients with LHRH agonists induces responses comparable to
       those achieved with other forms of castration (Klijn et al., J. Steroid
       Biochem. 20: 1381, 1984; Manni et al., Endocr. Rev. 7: 89-94, 1986).
       Beneficial effects of treatment with LHRH agonists have also
      been observed in postmenopausal women (Nicholson et al., J. Steroid
      Biochem. 23: 843-848, 1985).
      U.S. Pat. No. 4,071,622 relates to the use of certain LHRH
SUMM
      agonists against DMBA-induced mammary carcinoma in rats.
SUMM
       . . . No. 4,760,053 describes a treatment of selected sex steroid
       dependent cancers which includes various specified combinations of
       compounds selected from LHRH agonists, antiandrogens,
       antiestrogens and certain inhibitors of sex steroid biosynthesis.
SUMM
       . . . 4,472,382 relates to treatment of prostatic adenocarcinoma,
      benign prostatic hypertrophy and hormone-dependent mammary tumors with
       specified pharmaceuticals or combinations. Various LHRH
       agonists and antiandrogens are discussed.
       . . . warm-blooded animals which may include inhibition of ovarian
SUMM
      hormonal secretion by surgical means (ovariectomy) or chemical means
       (use of an LHRH agonist, e.g. [D-Trp.sup.6,
       des-Gly-NH.sub.2.sup.10 ]LHRH ethylamide, or antagonists) as
       part of a combination therapy. Antiestrogens, androgens, progestins,
       inhibitors of sex steroid formation (especially of 17.beta .-
      hydroxysteroid. . .
SUMM
       . . . months has recently been observed in a group of 33
      postmenopausal women who previously failed or did not respond to
     Tamoxifen (Manni et al., Cancer 48: 2507-2509, 1981) upon
       treatment with Fluoxymesterone (Halostatin) (10 mg, b.i.d.). Of these
       women, 17 had. . . also undergone hypophysectomy. There was no
       difference in the response rate to Fluoxymesterone in patients who had
      previously responded to Tamoxifen and in those who had failed.
       Of the 17 patients who had failed to both Tamoxifen and
       hypophysectomy, 7 responded to Fluoxymesterone for an average duration
       of 10 months. Among these, two had not responded to either
     Tamoxifen or hypophysectomy.
SUMM
      The combination Fluoxymesterone and Tamoxifen has been shown
       to be superior to Tamoxifen alone. In fact, complete responses
       (CR) were seen only in the combination arm while 32% showed partial
       response (PR) in. . . Ann. Int. Med. 98: 139-144, 1983). Moreover,
       the median time from onset of therapy to treatment failure was longer
       with Fluoxymesterone+Tamoxifen (180 days) compared to the
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Tamoxifen arm alone (64 days). There was a tendency for improved

survival in the combination therapy arm (380 versus 330 days). . . . effect of an androgen combined with an antiestrogen is SUMM suggested by the report that patients who did not respond to Tamoxifen could respond to Fluoxymesterone and vice versa. Moreover, patients treated with Tamoxifen and crossing over to Fluoxymesterone survived longer that those treated with the reverse regimen (Tormey et al., Ann. Int. Med.. . unselected breast cancer patients (Horwitz, J. Steroid SUMM Biochem. 27: 447-457, 1987), an efficacy comparable to that of the non-steroidal antiestrogen tamoxifen (Lippman, Semin. Oncol. 10 (Suppl.): 11-19, 1983). Its more general use, however, is for breast cancer relapsing after other endocrine. . . . et al., Am. J. Obstet. Gynecol. 158: 797-807, 1988). The SUMM androgen methyltestosterone has been shown to relieve the symptoms of endometriosis (Hamblen, South Med. J. 50: 743, 1987; Preston, Obstet. Gynecol. 2: 152, 1965). Androgenic and masculinizing side effects (sometimes irreversible). . . High dose MPA as first treatment of breast cancer has shown similar SUMM effects as Tamoxifen (Van Veelen et al., Cancer 58: 7-13, 1986). High dose progestins, especially medroxyprogesterone acetate and megestrol acetate have also been. . . Am. J. Obstet. Gynecol. 158: 797-807, 1988). High dose MPA is being used with a success similar to that of Tamoxifen for the treatment of endometrial carcinoma (Rendina et al., Europ. J. Obstet. Gynecol. Reprod. Biol. 17: 285-291, 1984). The androgen methyltestosterone has been shown to relieve the symptoms SUMM of endometriosis (Hamblen, South Med. J. 50: 743, 1987; Preston, Obstet, Gynecol. 2: 152, 1965). Androgenic and masculinizing side effects (sometimes irreversible). . . breast cancer, would have undesirable deleterious effects on SUMM bone mass in women. Similarly, blockade of estrogens, a common treatment for endometriosis, has similar undesirable deleterious effects on bone mass in women. object of the present invention to provide a method for SUMM prevention and treatment of breast cancer, endometrial cancer, osteoporosis and endometriosis, while substantially avoiding undesirable side effects. . . activities induced by estrogens. For example, estrogen-related SUMM diseases include but are not limited to breast cancer, endometrial cancer, bone loss, endometriosis and osteoporosis. The methods described herein are particularly useful for the treatment SUMM of human breast or endometrial cancer, osteoporosis or endometriosis. It is believed that the methods are also suitable for other purposes which are enhanced by administering androgens or otherwise. for treating or preventing estrogen sensitive diseases and SUMM disorders including but not limited to breast cancer, endometrial cancer, osteoporosis and endometriosis. The methods comprise administering to a patient in need of such treatment or prevention, an effective amount of sustained release. . . . not only for their more rational use in the prevention and $% \left(1\right) =\left(1\right) \left(1\right)$ DETD therapy of breast and endometrial cancers as well as endometriosis and bone loss but also to avoid side effects caused by interaction with steroid receptors unnecessary for the desired beneficial. . . breast and endometrial cancer as well as other diseases DETD responsive to activation of the androgen receptor, e.g. bone loss and endometriosis. In this invention, the amount of the androgenic compounds administered is much lower than previously used in art for the.

scan, chest X-Ray, skeletal survey, ultrasonography of the

liver and liver scan (if needed), CAT scan, MRI and physical examination. **Endometriosis** can be diagnosed following pains or

DETD

symptoms associated with menstruations in women while definitive diagnosis can be obtained by laparascopy. . .

DETD . . . prevent other signs and symptoms of menopause. In women, when estrogen formation and/or action has been blocked for treatment of endometriosis, leiomyomata, breast cancer, uterine cancer,

ovarian cancer or other estrogen-sensitive disease, administration of the androgen can be started at any. . .

DETD . . . for use in the prevention and treatment of breast and endometrial cancer as well as bone loss and treatment of endometriosis as discussed above. The kits or packages may also contain instructions on how to use the pharmaceutical compositions in

DETD . . . the above therapy using the described regimen, tumor growth of breast and endometrial cancer as well as bone loss and endometriosis can be relieved while minimizing adverse side effects. The use of the described regimen can also prevent appearance

of the.

L10 ANSWER 8 OF 24 USPATFULL

accordance.

The present invention relates to a purified, easily produced poly-.beta.-1.fwdarw.4-N-acetylglucosamine (p-GlcNAc) polysaccharide species. The p-GlcNAc of the invention is a polymer of high molecular weight whose constituent monosaccharide sugars are attached in a .beta.-1.fwdarw.4 conformation, and which is free of proteins, and substantially free of single amino acids, and other organic and inorganic contaminants. In addition, derivatives and reformulations of p-GlcNAc are described. The present invention further relates to methods

for the purification of the p-GlcNAc of the invention from microalgae, preferably diatom, starting sources. Still further, the invention relates to methods for the derivatization and reformulation of the p-GlcNAc. Additionally, the present invention relates to the uses of pure p-GlcNAc, its derivatives, and/or its reformulations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 97:35944 USPATFULL

TITLE: Methods and compositions for poly-.beta.-1-4-N-

acetylglucosamine biological barriers

acetyigitcosamine biological balliels

INVENTOR(S): Vournakis, John N., Hanover, NH, United States

Finkielsztein, Sergio, Chestnut Hill, MA, United

States

Pariser, Ernest R., Belmont, MA, United States

Helton, Mike, Memphis, TN, United States

PATENT ASSIGNEE(S): Marine Polymer Technologies, Inc., Danvers, MA, United

States (U.S. corporation)

APPLICATION INFO.: US 95-470083 19950606 (8)

All Hold Indiana in the Control of Control o

RELATED APPLN. INFO.:

Continuation-in-part of Ser. No. US 94-347911, filed

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1 Dec 1994 which is a continuation-in-part of Ser. No. US 93-160569, filed on 1 Dec 1993

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Kight, John

ASSISTANT EXAMINER: Fonda, Kathleen Kahler

LEGAL REPRESENTATIVE: Pennie & Edmonds

NUMBER OF CLAIMS: 14 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 74 Drawing Figure(s); 58 Drawing Page(s)

LINE COUNT: 4072

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

PI US 5624679 19970429 <--

DETD . . . (ara-C) are contemplated for use in the invention as an

improved treatment for acute nonlymphocytic leukemia. Other synergistic combinations include tamoxifen with cisplatin for breast cancer, and prostaglandins with cisplatin for breast and prostate cancer. Additionally, many other synergistic combinations of. . .

. prednisolone and dexamethasone), estrogens, DETD

(diethylstibesterol, estradiol, esterified estrogens, conjugated estrogen, chlorotiasnene), progestins (medroxyprogesterone acetate, hydroxy progesterone caproate, megestrol acetate), antiestrogens (tamoxifen), aromastase inhibitors (aminoglutethimide), androgens (testosterone propionate, methyltestosterone, fluoxymesterone, testolactone), antiandrogens (flutamide), LHRH analogues (leuprolide acetate), and endocrines for prostate cancer

(ketoconazole).

. . . in trauma wounds, for example, spleen, liver and blood vessel DETD injuries; in standard and minimally invasive surgical procedures, for example, endometriosis surgery and operations on the gallbladder; in soft and hard tissue wound repair, for example, skin wounds and burn healing;.

L10 ANSWER 9 OF 24 USPATFULL

Certain steroidal and non-steroidal compounds have been found to inhibit

androgen and estrogen formation. Such inhibition may aid in the reduction of the activity of these hormones and may be useful in the treatment of diseases where, for example, inhibition of androgen or estrogen activity is desired. Preferred inhibitors also possess antiestrogenic activity, thus providing the advantage of a double inhibitory action both on estrogen formation and on estrogen action (blockade of estrogen receptors by antiestrogenic action).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 96:116412 USPATFULL

Inhibitors of sex steroid biosynthesis and methods for TITLE:

their production and use

Labrie, Fernand, Ste.-Foy, Canada INVENTOR(S):

Merand, Yves, Ste.-Foy, Canada

Endorecherche Inc., Canada (non-U.S. corporation) PATENT ASSIGNEE(S):

> NUMBER DATE _____

PATENT INFORMATION: US 5585405 19961217 APPLICATION INFO.: US 94-283989 19940801 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 92-966112, filed on 22 Oct

1992, now patented, Pat. No. US 5364847 which is a continuation of Ser. No. US 89-322154, filed on 10 Mar

1989, now abandoned

DOCUMENT TYPE: Utility

Jordan, Kimberly PRIMARY EXAMINER:

Ostrolenk, Faber, Gerb & Soffen, LLP LEGAL REPRESENTATIVE:

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)

LINE COUNT: 1357

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

PΙ US 5585405 19961217

DETD . are not limited to, malignant as well as non-malignant steroid-sensitive diseases, especially breast cancer, prostate cancer, ovarian cancer, endometrial cancer, endometriosis, uterine leiomyomata, precocious puberty, hirsutism, acne, seborrhea, androgenic alopecia benign prostatic hyperplasia, sexual deviants as well as for male and.

In particular, a preferred inhibitor produces antisteroid effects at a DETD dose possessing no agonistic activity, unlike compounds such as Tamoxifen, which possesses some agonistic properties which limit their therapeutical efficiency (Wakeling and Bowler, J. Steroid

Biochem.

30, 141-147, 1988).

. . and antiandrogens are beneficial. In particular this approach DETD is of value in breast cancer, prostate cancer, endometrial cancer, ovarian cancer, endometriosis, benign prostatic hyperplasia, precocious puberty, hirsutism, acne, seborrhea, androgenic alopecia, menstrual disorders and as male and female contraceptive as well.

. dosage of the above-described compound (multi sex hormone DETD blocker) are the same as in intact patients or patients receiving an LHRH agonist or antagonist.

ANSWER 10 OF 24 USPATFULL L10

A method of treatment or prevention of breast and endometrial cancer, AB osteoporosis and endometriosis in susceptible warm-blooded animals comprising administering a low dose of a progestin or other steroid derivative having androgenic activity and low masculinizing activity. Pharmaceutical compositions useful for such treatment and pharmaceutical kits containing such compositions are disclosed. An in vitro assay permitting specific measurements of androgenic activity of potentially useful compounds is also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 96:97032 USPATFULL

Methods for preventing and treating osteoporosis with TITLE:

low dose non-masculinizing androgenic compounds

Labrie, Fernand, Quebec, Canada INVENTOR(S):

Endorecherche, Inc., Quebec, Canada (non-U.S. PATENT ASSIGNEE(S):

corporation)

NUMBER DATE _____ US 5567695 19961022 PATENT INFORMATION: APPLICATION INFO.: <--US 95-483761 19950607 (8) Division of Ser. No. US 94-282964, filed on 29 Jul RELATED APPLN. INFO.: 1994

which is a division of Ser. No. US 93-15083, filed on

Feb 1993, now patented, Pat. No. US 5362720 which is a continuation of Ser. No. US 91-724532, filed on 28 Jun

1991, now abandoned

DOCUMENT TYPE: Utility

Nutter, Nathan M. PRIMARY EXAMINER:

LEGAL REPRESENTATIVE: Ostrolenk, Faber, Gerb & Soffen, LLP

NUMBER OF CLAIMS: 29 EXEMPLARY CLAIM: 1

8

kits

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 1453

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

US 5567695 19961022 PΙ

A method of treatment or prevention of breast and endometrial cancer, AB osteoporosis and endometriosis in susceptible warm-blooded animals comprising administering a low dose of a progestin or other steroid derivative having androgenic activity and. . .

SUMM This invention relates to a method for treating or preventing breast and

endometrial cancer, bone loss, and for treating endometriosis in susceptible warm-blooded animals including humans involving administration of a compound possessing androgenic activity, and to

containing active ingredients. .

SUMM . . . for breast and endometrial cancer as well as for the prevention

and treatment of bone loss and for treatment of endometriosis. The main approaches for the treatment of already developed breast cancer

are related to the inhibition of estrogen action and/or. .

. . . two procedures giving irreversible castration. Recently, a SUMM

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reversible form of castration has been achieved by utilizing
Luteinizing
       Hormone-Releasing Hormone Agonists (LHRH agonists) which,
       following inhibition of secretion of bioactive Luteinizing Hormone (LH)
       by the pituitary gland, decrease serum estrogens to castrated.
       Several studies show that treatment of premenopausal breast cancer
SUMM
       patients with LHRH agonists induces responses comparable to
       those achieved with other forms of castration (Klijn et al., J. Steroid
       Biochem. 20:1381, 1984; Manni et al., Endocr. Rev. 7:89-94, 1986).
       Beneficial effects of treatment with LHRH agonists have also
       been observed in postmenopausal women (Nicholson et al., J. Steroid
       Biochem. 23:843-848, 1985).
       U.S. Pat. No. 4,071,622 relates to the use of certain LHRH
SUMM
       agonists against DMBA-induced mammary carcinoma in rats.
             . No. 4,760,053 describes a treatment of selected sex steroid
SUMM
       dependent cancers which includes various specified combinations of
       compounds selected from LHRH agonists, antiandrogens,
       antiestrogens and certain inhibitors of sex steroid biosynthesis.
                4,472,382 relates to treatment of prostatic adenocarcinoma,
SUMM
       benign prostatic hypertrophy and hormone-dependent mammary tumors with
       specified pharmaceuticals or combinations. Various LHRH
       agonists and antiandrogens are discussed.
            . warm-blooded animals which may include inhibition of ovarian
SUMM
       hormonal secretion by surgical means (ovariectomy) or chemical means
       (use of an LHRH agonist, e.g. [D-Trp.sup.6,
       des-Gly-NH.sub.2.sup.10 ] LHRH ethylamide, or antagonists) as
       part of a combination therapy. Antiestrogens, androgens, progestins,
       inhibitors of sex steroid formation (especially of 17.beta.-
       hydroxysteroid.
SUMM
       . . . months has recently been observed in a group of 33
       postmenopausal women who previously failed or did not respond to
     Tamoxifen (Manni et al., Cancer 48:2507-2509, 1981) upon
       treatment with Fluoxymesterone (Halostatin) (10 mg, b.i.d.). Of these
       women, 17 had also undergone hypophysectomy. There was no difference in
       the response rate to Fluoxymesterone in patients who had previously
       responded to Tamoxifen and in those who had failed. Of the 17
       patients who had failed to both Tamoxifen and hypophysectomy,
       7 responded to Fluoxymesterone for an average duration of 10 months.
       Among these, two had not responded to either Tamoxifen or
       hypophysectomy.
       The combination Fluoxymesterone and Tamoxifen has been shown
SUMM
       to be superior to Tamoxifen alone. In fact, complete responses
       (CR) were seen only in the combination arm while 32% showed partial
       response (PR) in. . al., Ann. Int. Med. 98:139-144, 1983).
       Moreover, the median time from onset of therapy to treatment failure
was
       longer with Fluoxymesterone+Tamoxifen (180 days) compared to
       the Tamoxifen arm alone (64 days). There was a tendency for
       improved survival in the combination therapy arm (380 versus 330 days).
       . . effect of an androgen combined with an antiestrogen is
SUMM
       suggested by the report that patients who did not respond to
     Tamoxifen could respond to Fluoxymesterone and vice versa.
       Moreover, patients treated with Tamoxifen and crossing over to
       Fluoxymesterone survived longer that those treated with the reverse
       regimen (Tormey et al., Ann. Int. Med..
       . . . in unselected breast cancer patients (Horwitz, J. Steroid Biochem. 27:447-457, 1987), an efficacy comparable to that of the
SUMM
       non-steroidal antiestrogen tamoxifen (Lippman, Semin. Oncol.
       10 (Suppl.): 11-19, 1983). Its more general use, however, is for breast
       cancer relapsing after other endocrine.
SUMM
       High dose MPA as first treatment of breast cancer has shown similar
       effects as Tamoxifen (Van Veelen et al., Cancer 58:7-13,
       1986). High dose progestins, especially medroxyprogesterone acetate and
       megestrol acetate have also been successfully. . . al., Am. J.
       Obstet. Gynecol. 158:797-807, 1988). High dose MPA is being used with a
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success similar to that of Tamoxifen for the treatment of

- endometrial carcinoma (Rendina et al., Europ. J. Obstet. Gynecol. Reprod. Biol. 17:285-291, 1984).
- SUMM The androgen methyltestosterone has been shown to relieve the symptoms of endometriosis (Hamblen, South Med. J. 50:743, 1987; Preston, Obstet, Gynecol. 2:152, 1965). Androgenic and masculinizing side effects (sometimes irreversible) are however. . .
- SUMM . . . breast cancer, would have undesirable deleterious effects on bone mass in women. Similarly, blockade of estrogens, a common treatment
 - for **endometriosis**, has similar undesirable deleterious effects on bone mass in women.
- SUMM . . . object of the present invention to provide a method for prevention and treatment of breast cancer, endometrial cancer, osteoporosis and **endometriosis**, while substantially avoiding undesirable side effects.
- SUMM . . . of said androgenic steroid described herein are particularly useful for the treatment of human breast or endometrial cancer, osteoporosis or **endometriosis**. It is believed that the methods are also suitable for all purposes which are enhanced by administering androgens or otherwise. . .
- DETD . . . not only for their more rational use in the prevention and therapy of breast and endometrial cancers as well as endometriois and bone loss but also to avoid side effects caused by interaction with steroid receptors unnecessary for the desired beneficial . . .
- DETD . . . breast and endometrial cancer as well as other diseases responsive to activation of the androgen receptor, e.g. bone loss and **endometriosis**. In this invention, the amount of the androgenic compounds administered is much lower than previously used in art for the
- DETD . . . scan, chest X-Ray, skeletal survey, ultrasonography of the liver and liver scan (if needed), CAT scan, MRI and physical examination. **Endometriosis** can be diagnosed following pains or symptoms assodated with menstruations in women while definitive diagnosis can be obtained by laparascopy. . .
- DETD . . . prevent other signs and symptoms of menopause. In women, when estrogen formation and/or action has been blocked for treatment of endometriosis, leiomyomata, breast cancer, uterine cancer, ovarian cancer or other estrogen-sensitive disease, administration of the androgen can be started at any. . .
- DETD . . . for use in the prevention and treatment of breast and endometrial cancer as well as bone loss and treatment of endometriosis as discussed above. The kits or packages may also contain instructions on how to use the pharmaceutical compositions in accordance. . .
- DETD . . . the above therapy using the described regimen, tumor growth of breast and endometrial cancer as well as bone loss and endometriosis can be relieved while minimizing adverse side effects. The use of the described regimen can also prevent appearance of

L10 ANSWER 11 OF 24 USPATFULL

the. . .

AB A method of treatment or prevention of breast and endometrial cancer, osteoporosis and **endometriosis** in susceptible warm-blooded animals comprising administering a low dose. Of a progestin or other steroid derivative having androgenic activity and low masculinizing activity. Pharmaceutical compositions useful for such treatment and pharmaceutical kits containing such compositions are disclosed. An in vitro assay permitting specific measurements of androgenic activity of potentially useful compounds is also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 96

96:72882 USPATFULL

TITLE: Activation of androgen receptors with low dose non-masculinizing androgenic compounds

Labrie, Fernand, Quebec, Canada INVENTOR(S):

Endorecherche, Inc., Quebec, Canada (non-U.S. PATENT ASSIGNEE(S):

corporation)

DATE NUMBER ______

US 5545634 19960813 US 94-282964 19940729 (8) PATENT INFORMATION:

APPLICATION INFO.:

Division of Ser. No. US 93-15083, filed on 8 Feb 1993, RELATED APPLN. INFO.:

now patented, Pat. No. US 5362720 which is a

continuation of Ser. No. US 91-724532, filed on 28 Jun

<--

1991, now abandoned

Utility DOCUMENT TYPE:

Nutter, Nathan M. PRIMARY EXAMINER:

Ostrolenk, Faber, Gerb & Soffen, LLP LEGAL REPRESENTATIVE:

11 NUMBER OF CLAIMS: EXEMPLARY CLAIM:

2 Drawing Figure(s); 2 Drawing Page(s) NUMBER OF DRAWINGS:

1406 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

US 5545634 19960813 PΙ

A method of treatment or prevention of breast and endometrial cancer, AΒ osteoporosis and endometriosis in susceptible warm-blooded animals comprising administering a low dose. Of a progestin or other steroid derivative having androgenic activity and. . .

This invention relates to a method for treating or preventing breast SUMM and

endometrial cancer, bone loss, and for treating endometriosis in susceptible warm-blooded animals including humans involving administration of a compound possessing androgenic activity, and to kits

containing active ingredients.

. . . for breast and endometrial cancer as well as for the SUMM prevention

and treatment of bone loss and for treatment of endometriosis. The main approaches for the treatment of already developed breast cancer

are related to the inhibition of estrogen action and/or.

SUMM . . . two procedures giving irreversible castration. Recently, a reversible form of castration has been achieved by utilizing

Luteinizing

Hormone-Releasing Hormone Agonists (LHRH agonists) which, following inhibition of secretion of bioactive Luteinizing Hormone (LH) by the pituitary gland, decrease serum estrogens to castrated. . .

Several studies show that treatment of premenopausal breast cancer SUMM patients with LHRH agonists induces responses comparable to those achieved with other forms of castration (Klijn et al., J. Steroid Biochem. 20: 1381, 1984; Manni et al., Endocr. Rev. 7: 89,-94, 1986). Beneficial effects of treatment with LHRH agonists have also been observed in postmenopausal women (Nicholson et al., J. Steroid Biochem. 23: 843-848, 1985).

U.S. Pat. No. 4,071,622 relates to the use of certain LHRH SUMM agonists against DMBA-induced mammary carcinoma in rats.

SUMM . . No. 4,760,053 describes a treatment of selected sex steroid dependent cancers which includes various specified combinations of compounds selected from LHRH agonists, antiandrogens, antiestrogens and certain inhibitors of sex steroid biosynthesis.

SUMM . . 4,472,382 relates to treatment of prostatic adenocarcinoma, benign prostatic hypertrophy and hormone-dependent mammary tumors with specified pharmaceuticals or combinations. Various LHRH agonists and antiandrogens are discussed.

. . warm-blooded animals which may include inhibition of ovarian SUMM hormonal secretion by surgical means (ovariectomy) or chemical means (use of an LHRH agonist, e.g. [D-Trp.sup.6, des-Gly-NH.sub.2.sup.10] LHRH ethylamide, or antagonists) as part of a combination therapy. Antiestrogens, androgens, progestins,

inhibitors of sex steroid formation (especially of 17.beta.hydroxysteroid. . . months has recently been observed in a group of 33 SUMM postmenopausal women who previously failed or did not respond to Tamoxifen (Manni et al., Cancer 48: 2507-2509, 1981) upon treatment with Fluoxymesterone (Halostatin) (10 mg, b.i.d.). Of these . . also undergone hypophysectomy. There was no women, 17 had. difference in the response rate to Fluoxymesterone in patients who had previously responded to Tamoxifen and in those who had failed. Of the 17 patients who had failed to both Tamoxifen and hypophysectomy, 7 responded to Fluoxymesterone for an average duration of 10 months. Among these, two had not responded to either Tamoxifen or hypophysectomy. The combination Fluoxymesterone and Tamoxifen has been shown SUMM to be superior to Tamoxifen alone. In fact, complete responses (CR) were seen only in the combination arm while 32% showed partial response (PR) in. . . Ann. Int. Med. 98: 139-144, 1983). Moreover, the median time from onset of therapy to treatment failure was longer with Fluoxymesterone+Tamoxifen (180 days) compared to the Tamoxifen arm alone (64 days). There was a tendency for improved survival in the combination therapy arm (380 versus 330 days). effect of an androgen combined with an antiestrogen is SUMM suggested by the report that patients who did not respond to Tamoxifen could respond to Fluoxymesterone and vice versa. Moreover, patients treated with Tamoxifen and crossing over to Fluoxymesterone survived longer that those treated with the reverse regimen (Tormey et al., Ann. Int. Med.. SUMM unselected breast cancer patients (Horwitz, J. Steroid Biochem. 27: 447-457, 1987), an efficacy comparable to that of the non-steroidal antiestrogen tamoxifen (Lippman, Semin. Oncol. 10 (Suppl.): 11-19, 1983). Its more general use, however, is for breast cancer relapsing after other endocrine. . High dose MPA as first treatment of breast cancer has shown similar SUMM effects as Tamoxifen (Van Veelen et al., Cancer 58: 7-13, 1986). High dose progestins, especially medroxyprogesterone acetate and megestrol acetate have also been. . . Am. J. Obstet. Gynecol. 158: 797-807, 1988). High dose MPA is being used with a success similar to that of Tamoxifen for the treatment of endometrial carcinoma (Rendina et al., Europ. J. Obstet. Gynecol. Reprod. Biol. 17: 285-291, 1984). In a. The androgen methyltestosterone has been shown to relieve the symptoms SUMM of endometriosis (Hamblen, South Med. J. 50: 743, 1987; Preston, Obstet, Gynecol. 2: 152, 1965). Androgenic and masculinizing side effects (sometimes irreversible). . . breast cancer, would have undesirable deleterious effects on SUMM bone mass in women. Similarly, blockade of estrogens, a common treatment for endometriosis, has similar undesirable deleterious effects on bone mass in women. object of the present invention to provide a method for SUMM prevention and treatment of breast cancer, endometrial cancer, osteoporosis and endometriosis, while substantially avoiding undesirable side effects. SUMM of said androgenic steroid described herein are particularly useful for the treatment of human breast or endometrial cancer, osteoporosis or endometriosis. It is believed that the methods are also suitable for all purposes which are enhanced by administering androgens or otherwise. . . not only for their more rational use in the prevention and DETD therapy of breast and endometrial cancers as well as endometriois and bone loss but also to avoid side effects caused by interaction with steroid receptors unnecessary for the desired beneficial.

. . breast and endometrial cancer as well as other diseases

responsive to activation of the androgen receptor, e.g. bone loss and

DETD

endometriosis. In this invention, the amount of the androgenic compounds administered is much lower than previously used in art for the. . .

DETD . . . scan, chest X-Ray, skeletal survey, ultrasonography of the liver and liver scan (if needed), CAT scan, MRI and physical examination. **Endometriosis** can be diagnosed following pains or symptoms associated with menstruations in women while definitive diagnosis can be obtained by laparascopy. . .

DETD . . . prevent other signs and symptoms of menopause. In women, when estrogen formation and/or action has been blocked for treatment of endometriosis, leiomyomata, breast cancer, uterine cancer, ovarian cancer or other estrogen-sensitive disease, administration of the androgen can be started at any. . .

DETD . . . for use in the prevention and treatment of breast and endometrial cancer as well as bone loss and treatment of endometriosis as discussed above. The kits or packages may also contain instructions on how to use the pharmaceutical compositions in accordance. . .

DETD . . . the above therapy using the described regimen, tumor growth of breast and endometrial cancer as well as bone loss and endometriosis can be relieved while minimizing adverse side effects. The use of the described regimen can also prevent appearance of

L10 ANSWER 12 OF 24 USPATFULL

the. . .

AB Methods of treatment and prevention of estrogen-related diseases, and of

fertility control, include low dose (e.g. less than 50 nanomolar serum concentration) administration of certain anabolic steroids, progestins and other substantially non-masculinizing androgenic compounds. Sustained release formulations substantially free of organic solvent, and sustained release formulations for maintaining low serum levels of androgen are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 96:67992 USPATFULL

TITLE: Controlled release systems and low dose androgens

INVENTOR(S): Labrie, Fernand, Quebec, Canada Lepage, Martin, Quebec, Canada

PATENT ASSIGNEE(S): Endorecherche, Inc., Canada (non-U.S. corporation)

APPLICATION INFO.: US 95-474347 19950607 (8)
RELATED APPLN. INFO.: Division of Ser. No. US 95-398096, filed on 3 Mar 1995 which is a division of Ser. No. US 92-900817, filed on

24 Jun 1992 which is a continuation-in-part of Ser.

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No.

US 91-724532, filed on 28 Jun 1991

DOCUMENT TYPE: Utility

PRIMARY EXAMINER: Nutter, Nathan M.

LEGAL REPRESENTATIVE: Ostrolenk, Faber, Gerb & Soffen

NUMBER OF CLAIMS: 1 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 17 Drawing Figure(s); 13 Drawing Page(s)

LINE COUNT: 2236

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

PI US 5541172 19960730

SUMM This invention relates to a method for treating or preventing breast and

endometrial cancer, bone loss, and for treating **endometriosis** in susceptible warm-blooded animals including humans involving administration of a compound possessing androgenic activity, and to

kits

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containing active ingredients.
SUMM
            . for breast and endometrial cancer as well as for the
prevention
      and treatment of bone loss and for treatment of endometriosis.
      The main approaches for the treatment of already developed breast
cancer
      are related to the inhibition of estrogen action and/or.
       . . . two procedures giving irreversible castration. Recently, a
SUMM
      reversible form of castration has been achieved by utilizing
Luteinizing
      Hormone-Releasing Hormone Agonists (LHRH agonists) which,
      following inhibition of secretion of bioactive Luteinizing Hormone (LH)
      by the pituitary gland, decrease serum estrogens to castrated.
      Several studies show that treatment of premenopausal breast cancer
SUMM
      patients with LHRH agonists induces responses comparable to
      those achieved with other forms of castration (Klijn et al., J. Steroid
      Biochem. 20: 1381,.
SUMM
      U.S. Pat. No. 4,071,622 relates to the use of certain LHRH
      agonists against DMBA-induced mammary carcinoma in rats.
            . No. 4,760,053 describes a treatment of selected sex steroid
SUMM
      dependent cancers which includes various specified combinations of
      compounds selected from LHRH agonists, antiandrogens,
      antiestrogens and certain inhibitors of sex steroid biosynthesis.
SUMM
            . 4,472,382 relates to treatment of prostatic adenocarcinoma,
      benign prostatic hypertrophy and hormone-dependent mammary tumors with
      specified pharmaceuticals or combinations. Various LHRH
      agonists and antiandrogens are discussed.
SUMM
            . warm-blooded animals which may include inhibition of ovarian
      hormonal secretion by surgical means (ovariectomy) or chemical means
       (use of an LHRH agonist, e.g. [D-Trp.sup.6,
      des-Gly-NH.sub.2.sup.10 ] LHRH ethylamide, or antagonists) as
      part of a combination therapy. Antiestrogens, androgens, progestins,
      inhibitors of sex steroid formation (especially of 17.beta.-
      hydroxysteroid.
SUMM
            . months has recently been observed in a group of 33
      postmenopausal women who previously failed or did not respond to
    Tamoxifen (Manni et al., Cancer 48: 2507-2509, 1981 ) upon
      treatment with Fluoxymesterone (Halostatin) (10 mg, b.i.d.). Of these
      women, 17. . . also undergone hypophysectomy. There was no
difference
      in the response rate to Fluoxymesterone in patients who had previously
      responded to Tamoxifen and in those who had failed. Of the 17
      patients who had failed to both Tamoxifen and hypophysectomy,
      7 responded to Fluoxymesterone for an average duration of 10 months.
      Among these, two had not responded to either Tamoxifen or
      hypophysectomy.
      The combination Fluoxymesterone and Tamoxifen has been shown
SUMM
      to be superior to Tamoxifen alone. In fact, complete responses
       (CR) were seen only in the combination arm while 32% showed partial
      response (PR) in. . . Ann. Int. Med. 98: 139-144, 1983). Moreover,
      the median time from onset of therapy to treatment failure was longer
      with Fluoxymesterone+Tamoxifen (180 days) compared to the
    Tamoxifen arm alone (64 days). There was a tendency for improved
      survival in the combination therapy arm (380 versus 330 days).
SUMM
            . effect of an androgen combined with an antiestrogen is
      suggested by the report that patients who did not respond to
    Tamoxifen could respond to Fluoxymesterone and vice versa.
      Moreover, patients treated with Tamoxifen and crossing over to
      Fluoxymesterone survived longer that those treated with the reverse
      regimen (Tormey et al., Ann. Int. Med..
SUMM
               unselected breast cancer patients (Horwitz, J. Steroid
Biochem.
      27: 447-457, 1987), an efficacy comparable to that of the non-steroidal
      antiestrogen tamoxifen (Lippman, Semin. Oncol. 10 (Suppl.):
      11-19, 1983). Its more general use, however, is for breast cancer
```

relapsing after other endocrine.

SUMM . . . et al., Am. J. Obstet. Gynecol. 158: 797-807, 1988). The androgen methyltestosterone has been shown to relieve the symptoms of endometriosis (Hamblen, South Med. J. 50: 743, 1987; Preston, Obstet. Gynecol. 2: 152, 1965). Androgenic and masculinizing side effects (sometimes irreversible). . .

SUMM High dose MPA as first treatment of breast cancer has shown similar effects as Tamoxifen (Van Veelen et al., Cancer 58: 7-13, 1986). High dose progestins, especially medroxyprogesterone acetate and

megestrol acetate have also been. . . Am. J. Obstet. Gynecol. 158: 797-807, 1988). High dose MPA is being used with a success similar to

(Rendina et al., Europ. J. Obstet. Gynecol. Reprod. Biol. 17: 285-291,

The androgen methyltestosterone has been shown to relieve the symptoms of endometriosis (Hamblen, South Med. J. 50: 743, 1987;
Preston, Obstet, Gynecol. 2: 152, 1965). Androgenic and masculinizing side effects (sometimes irreversible). . .

that of Tamoxifen for the treatment of endometrial carcinoma

- SUMM . . . breast cancer, would have undesirable deleterious effects on bone mass in women. Similarly, blockade of estrogens, a common treatment
 - for **endometriosis**, has similar undesirable deleterious effects on bone mass in women.
- SUMM . . . object of the present invention to provide a method for prevention and treatment of breast cancer, endometrial cancer, osteoporosis and **endometriosis**, while substantially avoiding undesirable side effects.
- SUMM . . . activities induced by estrogens. For example, estrogen-related diseases include but are not limited to breast cancer, endometrial cancer, bone loss, **endometriosis** and osteoporosis.
- SUMM The methods described herein are particularly useful for the treatment of human breast or endometrial cancer, osteoporosis or endometriosis. It is believed that the methods are also suitable for other purposes which are enhanced by administering androgens or otherwise. . .
- SUMM . . . for treating or preventing estrogen sensitive diseases and disorders including but not limited to breast cancer, endometrial cancer, osteoporosis and **endometriosis**. The methods comprise administering to a patient in need of such treatment or prevention, an effective amount of sustained release. . .
- DETD . . . not only for their more rational use in the prevention and therapy of breast and endometrial cancers as well as endometriosis and bone loss but also to avoid side effects caused by interaction with steroid receptors unnecessary for the desired
- beneficial. . .

 DETD . . . breast and endometrial cancer as well as other diseases responsive to activation of the androgen receptor, e.g. bone loss and endometriosis. In this invention, the amount of the androgenic compounds administered is much lower than previously used in art for the. . .
- DETD . . . scan, chest X-Ray, skeletal survey, ultrasonography of the liver and liver scan (if needed), CAT scan, MRI and physical examination. **Endometriosis** can be diagnosed following pains or symptoms associated with menstruations in women while definitive diagnosis can be obtained by laparascopy. . .
- DETD . . . prevent other signs and symptoms of menopause. In women, when estrogen formation and/or action has been blocked for treatment of endometriosis, leiomyomata, breast cancer, uterine cancer, ovarian cancer or other estrogen-sensitive disease, administration of the androgen can be started at any. . .
- DETD . . . for use in the prevention and treatment of breast and endometrial cancer as well as bone loss and treatment of endometriosis as discussed above. The kits or packages may also contain instructions on how to use the pharmaceutical compositions in accordance. . .
- DETD . . . the above therapy using the described regimen, tumor growth of

breast and endometrial cancer as well as bone loss and endometriosis can be relieved while minimizing adverse side effects. The use of the described regimen can also prevent appearance

of

L10 ANSWER 13 OF 24 USPATFULL

Certain toxic compounds (T) such as, for example, compounds based upon AB diphtheria toxin, ricin toxin, pseudomonas exotoxin, .alpha.-amanitin, pokeweed antiviral protein (PAP), ribosome inhibiting proteins, especially the ribosome inhibiting proteins of barley, wheat, corn,

rye,

gelonin and abrin, as well as certain cytotoxic chemicals such as, for example, melphalan and daunomycin can be conjugated to certain analogs of gonadotropin-releasing hormone to form a class of compounds which, when injected into an animal, destroy the gonadotrophs of the animal's anterior pituitary gland. Hence such compounds may be used to sterilize such animals and/or to treat certain sex hormone related diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

96:14794 USPATFULL

TITLE:

Hormone-toxin conjugate compounds

INVENTOR(S):

Nett, Torrance M., Ft. Collins, CO, United States

Glode, Leonard M., Aurora, CO, United States

PATENT ASSIGNEE(S):

Colorado State University Research Foundation, Fort

Collins, CO, United States (U.S. corporation)

NUMBER	DATE

PATENT INFORMATION:

19960220 US 5492893

APPLICATION INFO.:

US 93-94250 19930720 (8)

RELATED APPLN. INFO.:

Division of Ser. No. US 92-837639, filed on 14 Feb 1992, now patented, Pat. No. US 5378688 which is a

continuation-in-part of Ser. No. US 89-314653, filed

<--

as

23 Feb 1989, now abandoned

DOCUMENT TYPE:

Utility

PRIMARY EXAMINER:

Warden, Jill Huff, Sheela J.

ASSISTANT EXAMINER: LEGAL REPRESENTATIVE:

Sheridan Ross & McIntosh

NUMBER OF CLAIMS:

17 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS:

8 Drawing Figure(s); 8 Drawing Page(s)

LINE COUNT:

1435

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

US 5492893 19960220 PΙ

of the steroidal hormones, estradiol, progesterone and SUMM testosterone. It should also be noted that the terms "GnRH" (qonadotropin-releasing hormone) and "LHRH" (luteinizing

hormone-releasing hormone) are sometimes used interchangeably in the literature. For the purposes of describing the prior art both terms.

SUMM this regard was recently published in the INTERNATIONAL JOURNAL

OF PHARMACOLOGY 76:R5-R8 by Singh et al. entitled "Controlled release of

LHRH-DT from bioerodible hydrogel microspheres." Generally speaking, it teaches that a natural GnRH/diphtheria toxin can be used

a vaccine. In this case the LHRH-DT molecule induces production of antibodies to GnRH which then serve to inactivate endogenous LHRH in the circulation. Without the endogenous

LHRH, there is no stimulation of the anterior pituitary gland to secrete LH and the gonads will cease functioning. However, as.

. medicine as well. For example, the potential for achieving SUMM chemical castration (rather than "surgical" castration) with certain luteinizing hormone-releasing hormone (LHRH) analogs has been reported (see for example, Javadpour, N., Luteinizing Hormone-Releasing Hormone (LHRH) in Disseminated Prostatic Cancer; 1M, Vol. 9, No. 11, November 1988). Table I below gives the structure of LHRH and the structure of certain analogs (e.g., Goserelin, Leuprolide, Buserelin and Nafarelin) of LHRH which are capable of temporarily suppressing luteinizing hormone secretion

and

thereby suppressing the gonads. As a consequence, these **LHRH** analogs have come to be regarded as a promising new class of agents for the treatment of various host-dependent diseases, especially prostatic cancer. In referring to Table I, it first should be noted that

LHRH has a decapeptide structure and that substitution of certain amino acids in the sixth and tenth positions of the LHRH produce analogs which render agonists that are up to 100 times more potent than the parent LHRH compound (hence these compounds are often referred to as "superagonists"). The structures of LHRH and the most commonly known LHRH superagonists are listed below.

SUMM

STRUCTURES OF LHRH AND SOME SUPERAGONISTS

(Superagonists have substitutions at

positions 6 and 10)

LHRH:

pGlu--His--Trp--Ser--Tyr--Gly--Leu--Arg--Pro--Gly--NH.sub.2

1 2 3 4 5 6 7 8 9 10

SUPERAGONISTS:

Name Subs. at 6 Subs. at 10

Terminator

Goserelin:

D-Ser(tBu) AzaGly Amide

Leuprolide:

D-Leu des-Gly Ethylamide

Buserelin:

D-Ser(tBu) des-Gly Ethylamide

Nafarelin:

D-2-NaphthylAla

None Amide

SUMM . . . inhibit steroid-dependent tumor growth is through administration of counter-regulatory hormones (e.g., DES in prostate cancer), sex-steroid hormone binding inhibitors (e.g., tamoxifen in breast cancer) or surgical castration. Thus the potential medical uses of such chemical castration compounds are vast and varied. . appropriately administered sex steroids, desirable antifertility effects

can be achieved. Another area of application in human medicine is treatment of **endometriosis**. This condition, which produces painful growth of endometrial tissue in the female peritoneum and pelvis

also responds to inhibition of. . .

L10 ANSWER 14 OF 24 USPATFULL

AB Certain toxic compounds (T) such as, for example, compounds based upon diphtheria toxin, ricin toxin, pseudomonas exotoxin, .alpha.-amanitin, pokeweed antiviral protein (PAP), ribosome inhibiting proteins, especially the ribosome inhibiting proteins of barley, wheat, corn,

gelonin and abrin, as well as certain cytotoxic chemicals such as, for example, melphalan and daunomycin can be conjugated to certain analogs of gonadotropin-releasing hormone to form a class of compounds which, when injected into an animal, destroy the gonadotrophs of the animal's anterior pituitary gland. Hence such compounds may be used to sterilize

such animals and/or to treat certain sex hormone related diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 96:9411 USPATFULL
TITLE: Method for sterili

Method for sterilizing animals using hormone-toxin

conjugate compounds

INVENTOR(S): Nett, Torrance M., Ft. Collins, CO, United States

Glode, Leonard M., Aurora, CO, United States

PATENT ASSIGNEE(S): Colorado State University Research Foundation, Fort

Collins, CO, United States (U.S. corporation)

NUMBER DATE

PATENT INFORMATION: US 5488036 19960130 <--

APPLICATION INFO.: US 93-94625 19930720 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 92-837639, filed on 14 Feb 1992, now patented, Pat. No. US 5378688 which is a continuation-in-part of Ser. No. US 89-314653, filed

on

23 Feb 1989, now abandoned

DOCUMENT TYPE: Utility

PRIMARY EXAMINER: Warden, Jill ASSISTANT EXAMINER: Huff, Sheila J.

LEGAL REPRESENTATIVE: Sheridan Ross & McIntosh

NUMBER OF CLAIMS: 18 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)

LINE COUNT: 1447

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

PI US 5488036 19960130

SUMM . . . of the steroidal hormones, estradiol, progesterone and

testosterone. It should also be noted that the terms "GnRH" (gonadotropin-releasing hormone) and "LHRH" (luteinizing

hormone-releasing hormone) are sometimes used interchangeably in the literature. For the purposes of describing the prior art both terms.

SUMM . . . regard was recently published in the INTERNATIONAL JOURNAL OF PHARMACOLOGY 76: R5-R8 by Singh et al. entitled "Controlled release of LHRH-DT from bioerodible hydrogel microspheres." Generally speaking, it teaches that a natural GnRH/diphtheria toxin can be used

as

a vaccine. In this case the **LHRH**-DT molecule induces production of antibodies to GnRH which then serve to inactivate endogenous **LHRH** in the circulation. Without the endogenous

LHRH, there is no stimulation of the anterior pituitary gland to secrete LH and the gonads will cease functioning. However, as.

SUMM . . . medicine as well. For example, the potential for achieving chemical castration (rather than "surgical" castration) with certain luteinizing hormone-releasing hormone (LHRH) analogs has been reported (see for example, Javadpour, N., Luteinizing Hormone-Releasing Hormone (LHRH) in Disseminated Prostatic Cancer; 1M, Vol. 9,

No. 11, November 1988). Table I below gives the structure of LHRH and the structure of certain analogs (e.g., Goserelin, Leuprolide, Buserelin and Nafarelin) of LHRH which

are capable of temporarily suppressing luteinizing hormone secretion

and

thereby suppressing the gonads. As a consequence, these LHRH analogs have come to be regarded as a promising new class of agents for the treatment of various host-dependent diseases, especially prostatic cancer. In referring to Table I, it first should be noted that

LHRH has a decapeptide structure and that substitution of certain amino acids in the sixth and tenth positions of the LHRH produce analogs which render agonists that are up to 100 times more potent than the parent LHRH compound (hence these compounds are often referred to as "superagonists"). The structures of

LHRH and the most commonly known LHRH superagonists

are listed below.

SUMM STRUCTURES OF LHRH AND SOME SUPERAGONISTS

pGlu--His--Trp--Ser--Tyr--Gly--Leu--Arg--Pro--Gly--NH.sub.2

1 2 3 4 5 6 7 8 9 10

SUPERAGONISTS:

Subs. at 6 Subs. at 10 Name

Terminator

Goserelin:

Amide D-Ser(tBu) AzaGly

Leuprolide:

D-Leu des-Gly Ethylamide

Buserelin:

Ethylamide D-Ser(tBu) des-Gly

Nafarelin:

D-2-NaphthylAla

None Amide

. inhibit steroid-dependent tumor growth is through SUMM administration of counter-regulatory hormones (e.g., DES in prostate

cancer), sex-steroid hormone binding inhibitors (e.g., tamoxifen in breast cancer) or surgical castration. Thus the potential medical uses of such chemical castration compounds are vast and varied.. .

appropriately administered sex steroids, desirable antifertility

can be achieved. Another area of application in human medicine is treatment of endometriosis. This condition, which produces painful growth of endometrial tissue in the female peritoneum and

pelvis

also responds to inhibition of. . .

CLM What is claimed is:

> said sex hormone related disease selected from the group consisting of breast cancer, prostate cancer, sex-steroid dependent tumors, osteoporosis and endometriosis, said conjugate by a linking agent comprising a peptide hormone capable of binding to a GnRH receptor, conjugated to a.

L10 ANSWER 15 OF 24 USPATFULL

Methods of treatment and prevention of estrogen-related diseases, and AB of

fertility control, include low dose (e.g. less than 50 nanomolaR serum concentration) administration of certain anabolic steroids, progestins and other substantially non-masculinizing androgenic compounds. Sustained release formulations substantially free of organic solvent, and sustained release formulations for maintaining low serum levels of androgen are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

95:64916 USPATFULL

TITLE:

Controlled release systems and low dose androgens

INVENTOR(S):

Labrie, Fernand, Quebec, Canada Lepage, Martin, Quebec, Canada

PATENT ASSIGNEE(S):

Endorecherche, Inc., Quebec, Canada (non-U.S.

corporation)

NUMBER DATE

PATENT INFORMATION:

US 5434146 19950718

APPLICATION INFO.:

US 92-900817 19920624 (7)

DISCLAIMER DATE:

20111108

RELATED APPLN. INFO.:

Continuation-in-part of Ser. No. US 91-724532, filed

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28 Jun 1991, now abandoned

DOCUMENT TYPE:

Utility

PRIMARY EXAMINER:

Nutter, Nathan M.

LEGAL REPRESENTATIVE:

Ostrolenk, Faber, Gerb & Soffen

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NUMBER OF CLAIMS:
                        16
EXEMPLARY CLAIM:
                        1
                       15 Drawing Figure(s); 9 Drawing Page(s)
NUMBER OF DRAWINGS:
LINE COUNT:
                        2424
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      US 5434146 19950718
      This invention relates to a method for treating or preventing breast
SUMM
and
       endometrial cancer, bone loss, and for treating endometriosis
       in susceptible warm-blooded animals including humans involving
       administration of a compound possessing androgenic activity, and to
kits
      containing active ingredients.
       . . . for breast and endometrial cancer as well as for the
SUMM
prevention
       and treatment of bone loss and for treatment of endometriosis.
       The main approaches for the treatment of already breast cancer are
       related to the inhibition of estrogen action and/or formation.. .
               two procedures giving irreversible castration. Recently, a
SUMM
       reversible form of castration has been achieved by utilizing
Luteinizing
      Hormone-Releasing Hormone Agonists (LHRH agonists) which,
       following inhibition of secretion of bioactive Luteinizing Hormone (LH)
      by the pituitary gland, decrease serum estrogens to castrated.
      Several studies show that treatment of premenopausal breast cancer
SUMM
      patients with LHRH agonists induces responses comparable to
       those achieved with other forms of castration (Klijn et al., J. Steroid
       Biochem. 20: 1381, 1984; Manni et al., Endocr. Rev. 7: 89-94, 1986).
       Beneficial effects of treatment with LHRH agonists have also
      been observed in postmenopausal women (Nicholson et al., J. Steroid
       Biochem. 23: 843-848, 1985).
SUMM
      U.S. Pat. No. 4,071,622 relates to the use of certain LHRH
       agonists against DMBA-induced mammary carcinoma in rats.
       . . . No. 4,760,053 describes a treatment of selected sex steroid
SUMM
       dependent cancers which includes various specified combinations of
       compounds selected from LHRH agonists, antiandrogens,
       antiestrogens and certain inhibitors of sex steroid biosynthesis.
       . . . 4,472,382 relates to treatment of prostatic adenocarcinoma,
SUMM
      benign prostatic hypertrophy and hormone-dependent mammary tumors with
       specified pharmaceuticals or combinations. Various LHRH
       agonists and antiandrogens are discussed.
SUMM
       . . . warm-blooded animals which may include inhibition of ovarian
      hormonal secretion by surgical means (ovariectomy) or chemical means
       (use of an LHRH agonist, e.g. [D-Trp.sup.6,
       des-Gly-NH.sub.2.sup.10 ] LHRH ethylamide, or antagonists) as
       part of a combination therapy. Antiestrogens, androgens, progestins,
       inhibitors of sex steroid formation (especially of 17.beta .-
      hydroxysteroid.
                       . .
SUMM
       . . . months has recently been observed in a group of 33
       postmenopausal women who previously failed or did not respond to
     Tamoxifen (Manni et al., Cancer 48: 2507-2509, 1981) upon
       treatment with Fluoxymesterone (Halostatin) (10 mg, b.i.d.). Of these
       women, 17 had. . . also undergone hypophysectomy. There was no
       difference in the response rate to Fluoxymesterone in patients who had
       previously responded to Tamoxifen and in those who had failed.
       Of the 17 patients who had failed to both Tamoxifen and
       hypophysectomy, 7 responded to Fluoxymesterone for an average duration
       of 10 months. Among these, two had not responded to either
     Tamoxifen or hypophysectomy.
SUMM
      The combination Fluoxymesterone and Tamoxifen has been shown
       to be superior to Tamoxifen alone. In fact, complete responses
       (CR) were seen only in the combination arm while 32% showed partial
       response (PR) in. . . Ann. Int. Med. 98: 139-144, 1983). Moreover,
       the median time from onset of therapy to treatment failure was longer
       with Fluoxymesterone+Tamoxifen (180 days) compared to the
     Tamoxifen arm alone (64 days). There was a tendency for improved
```

survival in the combination therapy arm (380 versus 330 days). . . . effect of an androgen combined with an antiestrogen is SUMM suggested by the report that patients who did not respond to Tamoxifen could respond to Fluoxymesterone and vice versa. Moreover, patients treated with Tamoxifen and crossing over to Fluoxymesterone survived longer that those treated with the reverse regimen (Torney et al., Ann. Int. Med.. unselected breast cancer patients (Horwitz, J. Steroid SUMM Biochem. 27: 447-457, 1987), an efficacy comparable to that of the non-steroidal antiestrogen tamoxifen (Lippman, Semin. Oncol. 10 (Suppl.): 11-19, 1983). Its more general use, however, is for breast cancer relapsing after other endocrine. . . et al., Am. J. Obstet. Gynecol, 158: 797-807, 1988). The SUMM androgen methyltesiosterone has been shown to relieve the symptoms of endometriosis (Hamblen, South Med. J. 50: 743, 1987; Preston, Obstet. Gynecol. 2: 152, 1965). Androgenic and masculinizing side effects (sometimes irreversible). High dose MPA as first treatment of breast cancer has shown similar SUMM effects as Tamoxifen (Van Veelen et al., Cancer 58: 7-13, 1986). High dose progestins, especially medroxyprogesterone acetate and megestrol acetate have also been. . . Am. J. Obstet. Gynecol. 158: 797-807, 1988). High dose MPA is being used with a success similar to that of Tamoxifen for the treatment of endometrial carcinoma (Rendina et al., Europ. J. Obstet. Gynecol. Reprod. Biol. 17: 285-291, 1984). The androgen methyltestosterone has been shown to relieve the symptoms SUMM of endometriosis (Hamblen, South Med. J. 50: 743, 1987; Preston, Obstet. Gynecol. 2: 152, 1965). Androgenic and masculinizing side effects (sometimes irreversible). . breast cancer, would have undesirable deleterious effects on SUMM bone mass in women. Similarly, blockade of estrogens, a common treatment for endometriosis, has similar undesirble deleterious effects on bone mass in women. object of the present invention to provide a method for SUMM prevention and treatment of breast cancer, endometrial cancer, osteoporosis and endometriosis, while substantially avoiding undesirable side effects. . . activities induced by estrogens. For example, estrogen-related SUMM diseases include but are not limited to breast cancer, endometrial cancer, bone loss, endometriosis and osteoporosis. The methods described herein are particularly useful for the treatment SUMM of human breast or endometrial cancer, osteoporosis or endometriosis. It is believed that the methods are also suitable for other purposes which are enhanced by administering androgens or otherwise. SUMM . . . for treating or preventing estrogen sensitive diseases and disorders including but not limited to breast cancer, endometrial cancer, osteoporosis and endometriosis. The methods comprise administering to a patient in need of such treatment or prevention, an effective amount of sustained release. . . not only for their more rational use in the prevention and DETD therapy of breast and endometrial cancers as well as endometriosis and bone loss but also to avoid side effects caused by interaction with steroid receptors unnecessary for the desired beneficial. . DETD . . breast and endometrial cancer as well as other diseases responsive to activation of the androgen receptor, e.g. bone loss and endometriosis. In this invention, the amount of the androgenic compounds administered is much lower than previously used in art for

scan, chest X-Ray, skeletal survey, ultrasonography of the

liver and liver scan (if needed), CAT scan, MRI and physical examination. **Endometriosis** can be diagnosed following pains or

DETD

symptoms associated with menstruations in women while definitive diagnosis can be obtained by laparascopy. . .

. . prevent other signs and symptoms of menopause. In women, when DETD estrogen formation and/or action has been blocked for treatment of endometriosis, leiomyomata, breast cancer, uterine cancer,

ovarian cancer or other estrogen-sensitive disease, administration of the androgen can be started at any.

. . . for use in the prevention and treatment of breast and DETD endometrial cancer as well as bone loss and treatment of

endometriosis as discussed above. The kits or packages may also contain instructions on how to use the pharmaceutical compositions in accordance. . .

the above therapy using the described regimen, tumor growth of DETD breast and endometrial cancer as well as bone loss and endometriosis can be relieved while minimizing adverse side effects. The use of the described regimen can also prevent appearance

of

the. . .

L10 ANSWER 16 OF 24 USPATFULL

Inhibitors of sex steroid activity, for example those having the general

structure ##STR1## may be used as part of a pharmaceutical composition to provide antiestrogenic effects and/or to suppress estrogen

Such pharmaceutical compositions are useful for the treatment of breast cancer or other diseases whose progress is aided by activation of sex steroid receptors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

95:20734 USPATFULL

TITLE:

Anti-estrogenic compounds and compositions

INVENTOR(S):

Labrie, Fernand, Quebec, Canada Merand, Yves, Quebec, Canada

PATENT ASSIGNEE(S):

Endorecherche Inc., Canada (non-U.S. corporation)

	NUMBER	DATE	
PATENT INFORMATION:	US 5395842	19950307	<- -
APPLICATION INFO.:	US 91-801704	19911202 (7)	
RELATED APPLN. INFO.:	Continuation-in-	-part of Ser. No.	US 88-265150, filed

RELATED APPLN. INFO.: on

31 Oct 1988, now abandoned And a continuation-in-part

of Ser. No. US 89-377010, filed on 7 Jul 1989, now

abandoned Utility

PRIMARY EXAMINER:

DOCUMENT TYPE:

Cintins, Marianne M.

ASSISTANT EXAMINER:

Criares, T. J.

LEGAL REPRESENTATIVE:

Ostrolenk, Faber, Gerb & Soffen

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

66

NUMBER OF DRAWINGS:

5 Drawing Figure(s); 5 Drawing Page(s)

LINE COUNT:

3525

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

US 5395842 19950307 PΙ

H. Mouridsen et al., Cancer Treatm. Rev. 5: 131-141 (1978), discloses SUMM that Tamoxifen, an antiestrogen, is effective in remission of advanced breast cancer in about 30 percent of the women patients treated.

SUMM The combined use of the antiestrogen Tamoxifen and a luteinizing hormone-releasing hormone agonist, Buserelin, is also known for treatment of breast cancer. See, for instance, Klijn et al. J. Steroid Biochem. 420: no. 6B,.

SUMM male animals including humans whose testicular hormonal secretions are blocked by surgical or chemical means, e.g., by use of

an

LHRH agonist, e.g., [D-Trp.sup.6, des-Gly-NH.sub.2.sup.10]

LHRH ethylamide. The treatment includes administering an

antiandrogen, e.g., flutamide in association with at least one

inhibitor

of sex steroid biosynthesis,.

U.S. Pat. No. 4,472,382 relates to a method of treating prostate cancer SUMM using the combination of an antiandrogen and an LHRH agonist.

. . . in the treatment of estrogen-related diseases. These diseases SUMM include, but are not limited to breast cancer, uterine cancer, ovarian cancer, endometriosis, uterine fibroma, precocious puberty and benign prostatic hyperplasia.

When administered systemically, pharmaceuticals of the inventions may DETD be

used in the treatment of breast cancer, uterine cancer, ovarian cancer, endometriosis, uterine fibroma, precocious puberty and benign prostatic hyperplasia.

L10 ANSWER 17 OF 24 USPATFULL

Novel antiestrogenic compounds are disclosed for use in therapeutic AΒ preparations for treatment of estrogen-dependent diseases. The compounds

are specified diphenylethane and diphenylethylene analogs which show strong affinity for estrogen receptors but substantially lack the capacity to activate such receptors or otherwise act as agonists.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

95:18454 USPATFULL

TITLE:

Therapeutic antiestrogens

INVENTOR (S):

Labrie, Fernand, Quebec, Canada Merand, Yves, Quebec, Canada

PATENT ASSIGNEE(S):

Endorecherche, Inc., Quebec, Canada (non-U.S.

corporation)

NUMBER	DATE

PATENT INFORMATION:

US 5393785 19950228 US 92-913746 19920714

APPLICATION INFO.:

19920714 (7)

RELATED APPLN. INFO.:

Continuation of Ser. No. US 88-265150, filed on 31 Oct

1988, now abandoned

DOCUMENT TYPE:

Utility

PRIMARY EXAMINER:

Henley, III, Raymond J.

ASSISTANT EXAMINER:

Criares, T. J.

LEGAL REPRESENTATIVE:

Ostrolenk, Faber, Gerb & Soffen

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

2 Drawing Figure(s); 2 Drawing Page(s)

NUMBER OF DRAWINGS: LINE COUNT:

564

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

US 5393785 19950228

<--

SUMM H. Mouridsen et al., Cancer Treatm. Rev. 5 (1978) 131-141, discloses that Tamoxifen, an antiestrogen, is effective in remission of advanced breast cancer in about 30 percent of the women patients treated.

SUMM The combined use of the antiestrogen Tamoxifen and a luteinizing hormone-releasing hormone agonist, Buserelin, is also known for treatment of breast cancer. See, for instance, Klijn et al. J. Steroid Biochem. 420 (no. 6B).

SUMM . in the treatment of estrogen-related diseases. These diseases include, but are not limited to breast cancer, uterine cancer, ovarian cancer, endometriosis, uterine fibroma, precocious puberty and benign prostatic hyperplasia.

L10 ANSWER 18 OF 24 USPATFULL

Certain toxic compounds (T) such as, for example, compounds based upon AB diphtheria toxin, ricin toxin, pseudomonas exotoxin, .alpha.-amanitin, pokeweed antiviral protein (PAP), ribosome inhibiting proteins,

especially the ribosome inhibiting proteins of barley, wheat, corn,

rye,

gelonin and abrin, as well as certain cytotoxic chemicals such as, for example, melphalan and daunomycin can be conjugated to certain analogs of gonadotropin-releasing hormone to form a class of compounds which, when injected into an animal, destroy the gonadotrophs of the animal's anterior pituitary gland. Hence such compounds may be used to sterilize such animals and/or to treat certain sex hormone related diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

95:1591 USPATFULL ACCESSION NUMBER:

GnRH analogs for destroying gonadotrophs TITLE:

Nett, Torrance M., Ft. Collins, CO, United States INVENTOR (S):

Glode, Leonard M., Aurora, CO, United States

Colorado State University Research Foundation, Ft. PATENT ASSIGNEE(S):

Collins, CO, United States (U.S. corporation)

<--

NUMBER DATE -----

PATENT INFORMATION: US 5378688 19950103

US 92-837639 19920214 (7) APPLICATION INFO.:

Continuation-in-part of Ser. No. US 89-314653, filed RELATED APPLN. INFO.:

23 Feb 1989, now abandoned

DOCUMENT TYPE: Utility

PRIMARY EXAMINER: Hill, Jr., Robert J.

ASSISTANT EXAMINER: Davenport, A. M.

LEGAL REPRESENTATIVE: Sheridan Ross & McIntosh

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1

8 Drawing Figure(s); 8 Drawing Page(s) NUMBER OF DRAWINGS:

LINE COUNT: 1354

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

US 5378688 19950103

. of the steroidal hormones, estradiol, progesterone and SUMM testosterone. It should also be noted that the terms "GnRH" (gonadotropin-releasing hormone) and "LHRH" (luteinizing

hormone-releasing hormone) are sometimes used interchangeably in the literature. For the purposes of describing the prior art both terms.

regard was recently published in the INTERNATIONAL JOURNAL OF SUMM PHARMACOLOGY 76: R5-R8 by Singh et al. entitled "Controlled release of LHRH-DT from bioerodible hydrogel microspheres." Generally speaking, it teaches that a natural GnRH/diphtheria toxin can be used

as

SUMM

a vaccine. In this case the LHRH-DT molecule induces production of antibodies to GnRH which then serve to inactivate endogenous LHRH in the circulation. Without the endogenous

LHRH, there is no stimulation of the anterior pituitary gland to secrete LH and the gonads will cease functioning. However, as.

. . . medicine as well. For example, the potential for achieving chemical castration (rather than "surgical" castration) with certain luteinizing hormone-releasing hormone (LHRH) analogs has been reported (see for example, Javadpour, N., Luteinizing Hormone-Releasing Hormone (LHRH) in Disseminated Prostatic Cancer; 1M, Vol. 9, No. 11, November 1988). Table I below gives the structure of

LHRH and the structure of certain analogs (e.g., Goserelin, Leuprolide, Buserelin and Nafarelin) of LHRH which

are capable of temporarily suppressing luteinizing hormone secretion

and

thereby suppressing the gonads. As a consequence, these LHRH analogs have come to be regarded as a promising new class of agents for the treatment of various host-dependent diseases, especially prostatic cancer. In referring to Table I, it first should be noted that

LHRH has a decapeptide structure and that substitution of certain amino acids in the sixth and tenth positions of the LHRH

produce analogs which render agonists that are up to 100 times more potent than the parent LHRH compound (hence these compounds are often referred to as "superagonists"). The structures of LHRH and the most commonly known LHRH superagonists are listed below.

SUMM

STRUCTURES OF LHRH AND SOME SUPERAGONISTS

(Superagonists have substitutions at positions 6 and 10)

##STR1##

SUPERAGONISTS:

Subs. at 6 Subs. at 10

Terminator

Goserelin:

Amide D-Ser(tBu) AzaGly

Leuprolide:

D-Leu

des-Gly Ethylamide

Buserelin:

D-Ser(tBu) des-Gly Ethylamide

Nafarelin:

D-2-NaphthylAla

None Amide

inhibit steroid-dependent tumor growth is through SUMM administration of counter-regulatory hormones (e.g., DES in prostate

cancer), sex-steroid hormone binding inhibitors (e.g., tamoxifen in breast cancer) or surgical castration. Thus the potential medical uses of such chemical castration compounds are vast and varied.. appropriately administered sex steroids, desirable antifertility

effects

can be achieved. Another area of application in human medicine is treatment of endometriosis. This condition, which produces painful growth of endometrial tissue in the female peritoneum and pelvis

also responds to inhibition of. .

L10 ANSWER 19 OF 24 USPATFULL

Certain steroidal and non-steroidal compounds have been found to AB inhibit

androgen and estrogen formation. Such inhibition may aid in the reduction of the activity of these hormones and may be useful in the treatment of diseases where, for example, inhibition of androgen or estrogen acitivity is desired. Preferred inhibitors also possess antiestrogenic activity, thus providing the advantage of a double inhibitory action both on estrogen formation and on estrogen action.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

94:99900 USPATFULL

TITLE:

Inhibitors of sex steroid biosynthesis and methods for

<--

their production and use

INVENTOR(S):

Labrie, Fernand, Quebec, Canada Merand, Yves, Quebec, Canada

PATENT ASSIGNEE(S):

Endorecherche, Canada (non-U.S. corporation)

NUMBER	DATE

PATENT INFORMATION: APPLICATION INFO.:

US 5364847 19941115

US 92-966112 19921022 (7)

DISCLAIMER DATE:

20100420

RELATED APPLN. INFO.:

Continuation of Ser. No. US 89-322154, filed on 10 Mar

1989, now abandoned

DOCUMENT TYPE:

Utility

PRIMARY EXAMINER:

Cintins, Marianne M.

ASSISTANT EXAMINER:

Jordan, Kimberly R.

Ostrolenk, Faber, Gerb & Soffen LEGAL REPRESENTATIVE:

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

3 Drawing Figure(s); 3 Drawing Page(s) NUMBER OF DRAWINGS:

1504 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

US 5364847 19941115

. . . are not limited to, malignant as well as non-malignant DETD steroid-sensitive diseases, especially brease cancer, prostate cancer, ovarian cancer, endometrial cancer, endometriosis, uterine leiomyomata, precocious puberty, hirsutism, acne, seborrhea, androgenic alopecia, benign prostatic hyperplasia, sexual deviants as well as for

In particular, a preferred inhibitor produces antisteroid effects at a DETD dose possessing no agonistic activity, unlike compounds such as Tamoxifen, which possesses some agonistic properties which limit their therapeutical efficiency (Wakeling and Bowler, J. Steroid

30, 141-147, 1988).

. . and antiandrogens are beneficial. In particular, this approach DETD is of value in breast cancer, prostate cancer, endometrial cancer, ovarian cancer, endometriosis, benign prostatic hyperplasia, precocious puberty, hirsutism, acne, seborrhea, androgenic alopecia, menstrual disorders and as male and female contraceptive as well. .

. dosage of the above-described compound (multi sex hormone DETD blocker) are the same as in intact patients or patients receiving an LHRH agonist or antagonist.

ANSWER 20 OF 24 USPATFULL

A method of treatment or prevention of breast and endometrial cancer, AΒ osteoporosis and endometriosis in susceptible warm-blooded animals comprising administering a low dose of a progestin or other steroid derivative having androgenic activity and low masculinizing activity. Pharmaceutical compositions useful for such treatment and pharmaceutical kits containing such compositions are disclosed. An in vitro assay permitting specific measurements of androgenic activity of potentially useful compounds is also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT. ACCESSION NUMBER: 94:97559 USPATFULL

Methods of treating or preventing breast or TITLE:

endometrial

cancer with low dose non-masculinizing androgenic

compounds

Labrie, Fernand, Quebec, Canada INVENTOR(S):

Endorecherche, Inc., Canada (non-U.S. corporation) PATENT ASSIGNEE(S):

> NUMBER DATE ______

US 5362720 19941108 <--PATENT INFORMATION:

US 93-15083 19930208 (8) APPLICATION INFO.:

Continuation of Ser. No. US 91-724532, filed on 28 Jun RELATED APPLN. INFO.:

1991, now abandoned

DOCUMENT TYPE: Utility

PRIMARY EXAMINER: Nutter, Nathan M.

Ostrolenk, Faber, Gerb & Soffen LEGAL REPRESENTATIVE:

NUMBER OF CLAIMS: 30 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT: 1452

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

US 5362720 19941108 <--PI

A method of treatment or prevention of breast and endometrial cancer, AB osteoporosis and endometriosis in susceptible warm-blooded animals comprising administering a low dose of a progestin or other steroid derivative having androgenic activity and.

```
This invention relates to a method for treating or preventing breast
SUMM
and
      endometrial cancer, bone loss, and for treating endometriosis
       in susceptible warm-blooded animals including humans involving
       administration of a compound possessing androgenic activity, and to
kits
      containing active ingredients.
       . . . for breast and endometrial cancer as well as for the
SUMM
prevention
       and treatment of bone loss and for treatment of endometriosis.
       The main approaches for the treatment of already developed breast
cancer
      are related to the inhibition of estrogen action and/or.
       . . . two procedures giving irreversible castration. Recently, a
SUMM
       reversible form of castration has been achieved by utilizing
Luteinizing
      Hormone-Releasing Hormone Agonists (LHRH agonists) which,
       following inhibition of secretion of bioactive Luteinizing Hormone (LH)
      by the pituitary gland, decrease serum estrogens to castrated.
       Several studies show that treatment of premenopausal breast cancer
SUMM
      patients with LHRH agonists induces responses comparable to
       those achieved with other forms of castration (Klijn et al., J. Steroid
       Biochem. 20: 1381, 1984; Manni et al., Endocr. Rev. 7: 89=94, 1986).
       Beneficial effects of treatment with LHRH agonists have also
      been observed in postmenopausal women (Nicholson et al., J. Steroid
      Biochem. 23: 843-848, 1985).
      U.S. Pat. No. 4,071,622 relates to the use of certain LHRH
SUMM
       agonists against DMBA-induced mammary carcinoma in rats.
            . No. 4,760,053 describes a treatment of selected sex steroid
SUMM
       dependent cancers which includes various specified combinations of
       compounds selected from LHRH agonists, antiandrogens,
       antiestrogens and certain inhibitors of sex steroid biosynthesis.
SUMM
                4,472,382 relates to treatment of prostatic adenocarcinoma,
      benign prostatic hypertrophy and hormone-dependent mammary tumors with
       specified pharmaceuticals or combinations. Various LHRH
       agonists and antiandrogens are discussed.
       . . . warm-blooded animals which may include inhibition of ovarian
SUMM
      hormonal secretion by surgical means (ovariectomy) or chemical means
       (use of an LHRH agonist, e.g. [D-Trp.sup.6,
       des-Gly-NH.sub.2.sup.10 ] LHRH ethylamide, or antagonists) as
       part of a combination therapy. Antiestrogens, androgens, progestins,
       inhibitors of sex steroid formation (especially of 17.beta.-
      hydroxysteroid.
       . . . months has recently been observed in a group of 33
SUMM
      postmenopausal women who previously failed or did not respond to
     Tamoxifen (Manni et al., Cancer 48: 2507-2509, 1981) upon
       treatment with Fluoxymesterone (Halostatin) (10 mg, b.i.d.). Of these
       women, 17 had. . . also undergone hypophysectomy. There was no
       difference in the response rate to Fluoxymesterone in patients who had
       previously responded to Tamoxifen and in those who had failed.
       Of the 17 patients who had failed to both Tamoxifen and
       hypophysectomy, 7 responded to Fluoxymesterone for an average duration
       of 10 months. Among these, two had not responded to either
     Tamoxifen or hypophysectomy.
SUMM
      The combination Fluoxymesterone and Tamoxifen has been shown
       to be superior to Tamoxifen alone. In fact, complete responses
       (CR) were seen only in the combination arm while 32% showed partial
       response (PR) in. . . Ann. Int. Med. 98: 139-144, 1983). Moreover,
       the median time from onset of therapy to treatment failure was longer
       with Fluoxymesterone+Tamoxifen (180 days) compared to the
     Tamoxifen arm alone (64 days). There was a tendency for improved
       survival in the combination therapy arm (380 versus 330 days).
            . effect of an androgen combined with an antiestrogen is
SUMM
       suggested by the report that patients who did not respond to
     Tamoxifen could respond to Fluoxymesterone and vice versa.
       Moreover, patients treated with Tamoxifen and crossing over to
```

Fluoxymesterone survived longer that those treated with the reverse regimen (Tormey et al., Ann. Int. Med.. unselected breast cancer patients (Horwitz, J. Steroid SUMM Biochem. 27: 447-457, 1987), an efficacy comparable to that of the nonsteroidal antiestrogen tamoxifen (Lippman, Semin. Oncol. 10 (Suppl.): 11-19, 1983). Its more general use, however, is for breast cancer relapsing after other endocrine. High dose MPA as first treatment of breast cancer has shown similar SUMM effects as Tamoxifen (Van Veelen et al., Cancer 58: 7-13, 1986). High dose progestins, especially medroxyprogesterone acetate and megestrol acetate have also been. . . Am. J. Obstet. Gynecol. 158: 797-807, 1988). High dose MPA is being used with a success similar to that of Tamoxifen for the treatment of endometrial carcinoma (Rendina et al., Europ. J. Obstet. Gynecol. Reprod. Biol. 17: 285-291, 1984). The androgen methyltestosterone has been shown to relieve the symptoms SUMM of endometriosis (Hamblen, South Med. J. 50: 743, 1987; Preston, Obstet, Gynecol. 2: 152, 1965). Androgenic and masculinizing side effects (sometimes irreversible). . . . breast cancer, would have undesirable deleterious effects on SUMM bone mass in women. Similarly, blockade of estrogens, a common treatment for endometriosis, has similar undesirable deleterious effects on bone mass in women. . . . object of the present invention to provide a method for SUMM prevention and treatment of breast cancer, endometrial cancer, osteoporosis and endometriosis, while substantially avoiding undesirable side effects. . . . of said androgenic steroid described herein are particularly SUMM useful for the treatment of human breast or endometrial cancer, osteoporosis or endometriosis. It is believed that the methods are also suitable for all purposes which are enhanced by administering androgens or otherwise. . . not only for their more rational use in the prevention and DETD therapy of breast and endometrial cancers as well as endometriois and bone loss but also to avoid side effects caused by interaction with steroid receptors unnecessary for the desired beneficial. . . breast and endometrial cancer as well as other diseases DETD responsive to activation of the androgen receptor, e.g. bone loss and endometriosis. In this invention, the amount of the androgenic compounds administered is much lower than previously used in art for the. scan, chest X-Ray, skeletal survey, ultrasonography of the DETD liver and liver scan (if needed), CAT scan, MRI and physical examination. Endometriosis can be diagnosed following pains or symptoms associated with menstruations in women while definitive diagnosis can be obtained by laparascopy. . . prevent other signs and symptoms of menopause. In women, when DETD estrogen formation and/or action has been blocked for treatment of endometriosis, leiomyomata, breast cancer, uterine cancer, ovarian cancer or other estrogen-sensitive disease, administration of the androgen can be started at any. for use in the prevention and treatment of breast and DETD endometrial cancer as well as bone loss and treatment of endometriosis as discussed above. The kits or packages may also contain instructions on how to use the pharmaceutical compositions in accordance. DETD . the above therapy using the described regimen, tumor growth of breast and endometrial cancer as well as bone loss and endometriosis can be relieved while minimizing adverse side

effects. The use of the described regimen can also prevent appearance

οf

the. . .

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ANSWER 21 OF 24 MEDLINE
    In young women chronic use of luteinizing hormone releasing hormone (
    LHRH) agonists such as buserelin to treat
     endometriosis leads to estrogen-deficiency bone loss.
     Tamoxifen citrate is an estrogen agonist/antagonist which protects
     the skeleton from osteopenia when ovarian hormones are depleted. The
    present study was undertaken to determine whether tamoxifen
     citrate (20 mg/kg body wt/week s.c.) could prevent the osteopenic effect
     of buserelin (25 micrograms/kg body wt/day s.c.). Four groups of
     rats with 45Ca-labelled bones were studied for 4 weeks: group A--placebo
     controls; group B--buserelin; Group C--tamoxifen;
     group D--buserelin+tamoxifen. Bone resorption was
    monitored by measuring the urinary excretion of 45Ca and hydroxyproline.
     Interestingly buserelin lowered both blood 17 beta-estradiol
     values and uterine weights in the presence and absence of
     tamoxifen. However, tamoxifen slowed bone breakdown and
     inhibited the bone-thinning effects of buserelin. Total body
     calcium values (mg; means +/- S.D.) were: 2227 +/- 137; 1926 +/- 124;
2233
     +/- 94 and 2268 +/- 163, in groups A to D respectively. Osteopenia was
     thus present only in group B (P less than 0.001). Because
     tamoxifen inhibits estrogen-deficiency bone loss in
     buserelin-treated rats without depressing the hypoestrogenic
     actions of this LHRH-agonist, we suggest that use of
     tamoxifen to protect the skeleton during LHRH-agonist
     therapy in young women should be explored. Tamoxifen citrate
     might also help to prevent postmenopausal osteoporosis.
ACCESSION NUMBER:
                    92404819
                                 MEDLINE
DOCUMENT NUMBER:
                    92404819
                    Tamoxifen in the rat prevents estrogen-deficiency
TITLE:
                    bone loss elicited with the LHRH agonist
                  buserelin.
AUTHOR:
                    Goulding A; Gold E; Feng W
                    Department of Medicine, University of Otago Medical
CORPORATE SOURCE:
School,
                    Dunedin, New Zealand...
                    BONE AND MINERAL, (1992 Aug) 18 (2) 143-52.
SOURCE:
                    Journal code: BMI. ISSN: 0169-6009.
                    Netherlands
PUB. COUNTRY:
                    Journal; Article; (JOURNAL ARTICLE)
                    English
LANGUAGE:
FILE SEGMENT:
                    Priority Journals
ENTRY MONTH:
                    199212
     Tamoxifen in the rat prevents estrogen-deficiency bone loss
     elicited with the LHRH agonist buserelin.
    BONE AND MINERAL, (1992 Aug) 18 (2) 143-52. Journal code: BMI. ISSN: 0169-6009.
SO
     In young women chronic use of luteinizing hormone releasing hormone (
AΒ
     LHRH) agonists such as buserelin to treat
     endometriosis leads to estrogen-deficiency bone loss.
     Tamoxifen citrate is an estrogen agonist/antagonist which protects
     the skeleton from osteopenia when ovarian hormones are depleted. The
     present study was undertaken to determine whether tamoxifen
     citrate (20 mg/kg body wt/week s.c.) could prevent the osteopenic effect
     of buserelin (25 micrograms/kg body wt/day s.c.). Four groups of
     rats with 45Ca-labelled bones were studied for 4 weeks: group A--placebo
     controls; group B--buserelin; Group C--tamoxifen;
     group D--buserelin+tamoxifen. Bone resorption was
     monitored by measuring the urinary excretion of 45Ca and hydroxyproline.
     Interestingly buserelin lowered both blood 17 beta-estradiol
     values and uterine weights in the presence and absence of
     tamoxifen. However, tamoxifen slowed bone breakdown and
     inhibited the bone-thinning effects of buserelin. Total body
     calcium values (mg; means +/- S.D.) were: 2227 +/- 137; 1926 +/- 124;
2233
     +/- 94 and 2268. . . 163, in groups A to D respectively. Osteopenia
was
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thus present only in group B (P less than 0.001). Because tamoxifen inhibits estrogen-deficiency bone loss in buserelin-treated rats without depressing the hypoestrogenic actions of this LHRH-agonist, we suggest that use of tamoxifen to protect the skeleton during LHRH-agonist therapy in young women should be explored. Tamoxifen citrate might also help to prevent postmenopausal osteoporosis.

CT . . . chemically induced

Bone Diseases, Metabolic: PC, prevention & control

*Bone Resorption: CI, chemically induced Bone Resorption: PC, prevention & control *Buserelin: AI, antagonists & inhibitors

Buserelin: PD, pharmacology

Calcium: ME, metabolism Calcium: UR, urine Disease Models, Animal Drug Interactions

Drug Interactions Estradiol: BL, blood

*Estrogens: DF, deficiency Gonadorelin: ME, metabolism Hydroxyproline: UR, urine Organ Weight: DE, drug effects Rats

Rats, Inbred Strains

*Tamoxifen: PD, pharmacology

Uterus: DE, drug effects

RN 10540-29-1 (Tamoxifen); 33515-09-2 (Gonadorelin); 50-28-2 (Estradiol); 51-35-4 (Hydroxyproline); 57982-77-1 (Buserelin); 7440-70-2 (Calcium)

L10 ANSWER 22 OF 24 BIOSIS COPYRIGHT 1999 BIOSIS

Tamoxifen used for adjuvant therapy in breast cancer, has a complex and unclear action on endometrium and myometrium. Many authors demonstrated endometrial proliferous changes in peri and post menopausal women. Our study shows the development of myomas in three patients without uterine pathology before tamoxifen therapy, and the increase of a polyp and a myoma after tamoxifen therapy. Moreover, we observed the development of a myoma in a patient after one year tamoxifen in association with LHRH analogue therapy. It is necessary to continue our study with a larger number of patients to assess the hyperplasia effect of tamoxifen.

ACCESSION NUMBER: 1993:345129 BIOSIS DOCUMENT NUMBER: PREV199396042129

TITLE: Uterine changes during tamoxifen therapy.

AUTHOR(S): Rullo, S.; Tagliaferri, T.; Bandiera, F.; Fiorelli, C.; Felici, A.; Piccioni, M. G.; Framarino Dei Malatesta, M.

L.

SOURCE:

(1)

CORPORATE SOURCE: (1) III Clin. Osterica Ginecol., Univ. di Roma "La

Sapienza", Policlin. Umberto I, 00161 Roma Italy Clinical and Experimental Obstetrics & Gynecology, (1993)

Vol. 20, No. 2, pp. 116-119.

ISSN: 0390-6663.

DOCUMENT TYPE: Article LANGUAGE: English

TI Uterine changes during tamoxifen therapy.

SO Clinical and Experimental Obstetrics & Gynecology, (1993) Vol. 20, No. 2, pp. 116-119.

ISSN: 0390-6663.

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the increase of a polyp and a myoma after tamoxifen therapy. Moreover, we observed the development of a myoma in a patient after one year tamoxifen in association with LHRH analogue therapy. It is necessary to continue our study with a larger number of patients to assess the hyperplasia effect of tamoxifen.

IT Major Concepts

Development; Oncology (Human Medicine, Medical Sciences);

Pharmacology;

Reproductive System (Reproduction); Toxicology

Chemicals & Biochemicals IT

TAMOXIFEN

RN 10540-29-1 (TAMOXIFEN)

ANSWER 23 OF 24 BIOSIS COPYRIGHT 1999 BIOSIS L10

The effect of medical oophorectomy induced by treatment with the AΒ luteinizing hormone-releasing hormone (LH-RH) agonist[D-Trp6,des-Gly-NH210]LH-RH ethylamide was studied in 34 patients with laparoscopically proven endometriosis. Tamoxifen was administered during the 1st month of therapy to prevent flare-up of the disease during the estrogen surge. Fifteen women had a decrease of their laparoscopy scores translated into an improvement in the stage of disease, whereas in 12 others, the decrease in their scores was not enough to allow a change of disease stage. The 2nd laparoscopy was not performed in 7 women. Medical oophorectomy, after daily injection of the LH-RH agonist (LH-RH-a), was accompanied by low levels of circulating estradiol. The serum concentration of all .DELTA.4-3-ketosteroids was significantly decreased during medical oophorectomy, whereas the level of circulating .DELTA.5-3.beta.-hydroxysteroids was not altered except for pregnenolone. The present data indicate that medical oophorectomy induced by an

in association with tamoxifen is a very efficient and well

tolerated therapy in endometriosis.

ACCESSION NUMBER:

1990:452916 BIOSIS

DOCUMENT NUMBER:

BA90:103556

TITLE:

LH-RH-a

HORMONAL AND BIOCHEMICAL CHANGES DURING TREATMENT OF

ENDOMETRIOSIS WITH THE LUTEINIZING

HORMONE-RELEASING HORMONE LHRH AGONIST D TRP-6

DES-GLY-AMIDE-10 LHRH ETHYLAMIDE.

AUTHOR (S):

DUPONT A; DUPONT P; BELANGER A; MAILOUX J; CUSAN L; LABRIE

CORPORATE SOURCE:

LAB. MOL. ENDOCRINOL., CHUL RES. CENT., 2705 LAURIER

BLVD.,

QUEBEC G1V 4G2, QUEBEC, CANADA.

SOURCE:

FERTIL STERIL, (1990) 54 (2), 227-232. CODEN: FESTAS. ISSN: 0015-0282.

FILE SEGMENT:

BA; OLD

LANGUAGE:

English

HORMONAL AND BIOCHEMICAL CHANGES DURING TREATMENT OF ENDOMETRIOSIS WITH THE LUTEINIZING HORMONE-RELEASING HORMONE LHRH AGONIST D TRP-6 DES-GLY-AMIDE-10 LHRH ETHYLAMIDE.

FERTIL STERIL, (1990) 54 (2), 227-232. CODEN: FESTAS. ISSN: 0015-0282. SO

AB. oophorectomy induced by treatment with the luteinizing hormone-releasing hormone (LH-RH) agonist[D-Trp6,des-Gly-NH210]LH-RH ethylamide was studied in 34 patients with laparoscopically proven endometriosis. Tamoxifen was administered during the 1st month of therapy to prevent flare-up of the disease during the estrogen surge. Fifteen women. . . was not altered except for pregnenolone. The present data indicate that medical oophorectomy induced by an LH-RH-a in association with tamoxifen is a very efficient and well tolerated therapy in endometriosis.

IT Miscellaneous Descriptors

HUMAN DECAPEPTYL TAMOXIFEN METABOLIC-DRUG ESTRADIOL INFERTILITY OOPHORECTOMY

50-28-2 (ESTRADIOL) RN

9002-67-9 (LUTEINIZING HORMONE) 9034-40-6 (LHRH) 10540-29-1 (TAMOXIFEN) 57773-63-4 (DECAPEPTYL)

L10 ANSWER 24 OF 24 BIOSIS COPYRIGHT 1999 BIOSIS

ACCESSION NUMBER: 1986:288328 BIOSIS

DOCUMENT NUMBER:

BR31:22906

TITLE:

CONTROL OF UTERINE MYOMA AND CORPUS CARCINOMA

USING HORMONES.

AUTHOR(S):

KATO H

SOURCE:

Rinsho Fujinka Sanka, (1986) 40 (1), 63-65.

CODEN: RFUSA4. ISSN: 0386-9865.

FILE SEGMENT:

BR; OLD

LANGUAGE:

Japanese

CONTROL OF UTERINE MYOMA AND CORPUS CARCINOMA USING HORMONES.

Rinsho Fujinka Sanka, (1986) 40 (1), 63-65.

CODEN: RFUSA4. ISSN: 0386-9865.

Miscellaneous Descriptors ΙT

HUMAN MEGESTROL ACETATE TAMOXIFEN CITRATE R-2323 GESTRINONE HYDROPROGESTERONE CAPROATE MEDROXYPROGESTERONE ACETATE

ANTINEOPLASTIC-DRUG HORMONE-DRUG LHRH TARGET ORGAN

71-58-9 (MEDROXYPROGESTERONE ACETATE) RN

595-33-5 (MEGESTROL ACETATE)

9034-40-6 (LHRH)

16320-04-0 (R-2323)

16320-04-0 (GESTRINONE)

54965-24-1 (TAMOXIFEN CITRATE)